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MARKETING SERVICE PROGRAMS

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STATE DEPARTMENTS OF AGRICULTURE

Under the Agricultural Marketing Act of 1946

in cooperation with

U.S. DEPARTMENT OF AGRICULTURE

October 1, 1954 - September 30, 1955

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AGRICULTURAL MARKETING SERVICE

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MARKETING SERVICE PROGRAMS CONDUCTED BY STATE DEPARTMENTS OF AGRICULTURE UNDER THE AGRICULTURAL MARKETING ACT OF 1946

(October 1, 1954 - September 30, 1955)

INTRODUCTION

The matched fund marketing service work being conducted by State departments of agriculture, under the authority of the Agricultural Marketing Act of 1946, has these aims: To help marketing agencies at each level of distribution to put into use improved marketing practices as they are discovered by research under the Act and by other agencies; to provide more timely, improved, and expanded market information services; and to increase the consumption of farm products. These activities under the Act were initiated in 1947.

In 1954-55, programs were carried on in 36 States, Alaska, Hawaii, and Puerto Rico. The States were: Alabama, Arkansas, California, Colorado, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Cooperation and assistance in insuring maximum effectiveness of the programs are being provided by industry and trade groups, producers, State extension services and experiment stations, vocational educational agencies, various agencies of the U. S. Department of Agriculture, and other interested groups. In some States industry groups are helping to finance the work.

In conducting marketing service activities on a matched fund basis, the States submit projects each year to the Agricultural Marketing Service for approval. Allotments are made to States for carrying on approved projects under cooperative agreements between the U. S. Department of Agriculture and State departments of agriculture, bureaus of markets, and similar State agencies. These projects, called "line projects," fall into 3 major fields of work, each field being covered by a work project. During the period covered by this report, 98 line projects were active under the 3 work projects:

1. Expanding market outlets and maintaining product quality (Work project 2550).--

   a. Finding markets for local seasonal surpluses.

   Producers are assisted in disposing of local seasonal surpluses by providing shippers, brokers, truckers, and other potential buyers

with up-to-date information on location, anticipated supplies, harvest dates, and peak marketing periods for the products concerned, and by conducting special promotional campaigns during the surplus periods.

b. Increasing consumption of products chronically in abundant supply.

Services designed to increase consumption on a long-time basis include: (1) Assistance to producers, shippers, wholesalers, and retailers in improving the effectiveness of their merchandising activities; (2) special surveys to determine trade opinion regarding improvements shippers should make in their grading, packing, and other marketing practices to improve consumer acceptability of their products; and (3) assistance in determining where additional selling devices--such as milk-vending machines--should be established for satisfactory results.

c. Maintaining product quality.

In connection with quality maintenance, such matters as improved grading, packing, storing, and other improved marketing operations are discussed with and demonstrated to the marketing agencies concerned, and firsthand assistance in their adoption and application is provided at the farm, the local assembly plant, the processing plant, the storage facility, the wholesale market, the retail store, and in transit between these points. Some States have established label programs to provide an incentive for quality marketing.

Work in the quality maintenance field includes assistance in developing improved marketing methods as well as assistance through demonstrations and informational programs in applying existing techniques. For example, recent developments by State departments of agriculture and other agencies in objective methods of determining maturity enable growers, packers, and processors to judge more accurately when harvesting should begin and to assist enforcement agencies in grades and standards work. Tests of the incidence of bruising and damage, using various packing and loading techniques, indicate where improvements are needed in these operations.

2. Reducing costs and improving operating efficiency (Work project 3550).--

Under this project, marketing agencies are shown the methods and the kinds of handling and processing equipment best suited to their operations, and assistance is provided in improving existing facilities and in designing and locating new facilities, such as livestock auctions, poultry processing plants, grain elevators, milk plants, fruit and vegetable assembly markets, and terminal markets.

3. Providing market information (Work project 4550).—

a. Helping growers and marketing agencies make marketing decisions.

Market news information from local markets is becoming of increased importance with the trend toward decentralized packing and processing, the bypassing of terminal markets, and direct selling at country points. To meet this growing need, experimental market news coverage is being provided for local markets not now being reported. If successful, these programs may be supported with regular funds at the end of the experimental period.

b. Developing information and basic data useful in planning marketing programs.

Information and basic data relating to trends in production, changes in consumer demand, the competitive situation in markets, storage holdings and rate of disappearance are collected, analyzed, and disseminated by Federal-State statisticians in the various States. These data are of value to producers and marketing agencies in planning programs. Data designed to provide a more dependable basis for crop estimates are obtained through censuses of tree numbers and objective samplings of crops at various stages of growth.

This progress report, which has been prepared from material submitted by the States, presents: (1) Some examples of marketing service work by major commodities, (2) summaries of work by States and line projects, and (3) a list of recent publications that have been issued in connection with the projects.

SOME EXAMPLES OF MARKETING SERVICE WORK BY MAJOR COMMODITIES

Dairy Products

Assistance in improving and expanding the distribution of dairy products was provided by State departments of agriculture in Illinois, Kentucky, Louisiana, Minnesota, North Carolina, Washington, and Wisconsin. In Louisiana, information on supply conditions in various surplus areas was made available daily to deficit markets within the State and in adjoining States. Through increasing the proportion of milk moving into Grade A rather than manufacturing outlets, this program resulted in substantially increased returns to producers. Wisconsin continued an aggressive market expansion program for milk, cheese, and butter through year-round informational programs and special promotions, such as June Dairy Month, the October Dairy Festival, and Cheese Week. The latter campaign was conducted in 10 out-of-State markets, and participating wholesalers and retailers reported substantial gains in sales both during and following the campaign week. Several States are assisting dairy plants, in cooperation with vending machine companies, to expand fluid milk sales through

increased vending machine placements. Minnesota surveyed the potentialities of milk vending in rural areas and issued a publication to all dairies in the State on this subject.

Marketing services designed to maintain or improve dairy product quality were provided by Alaska, Indiana, Louisiana, Minnesota, Mississippi, Montana, North Dakota, Wisconsin, and Wyoming. The Mississippi Department of Agriculture has been able to effect a considerable reduction in the quantity of milk rejected through a quality-maintenance program at the producer level. Under this program some 400 producers delivering milk of low quality to 3 fluid milk and 6 manufacturing plants were assisted in installing the equipment and in adopting the handling methods necessary for quality improvement.

Wisconsin conducted intensive quality-improvement programs in Sheboygan and Wood counties under which inspectors were assigned full time to work at all levels of distribution. This program has been conducted in Sheboygan county for 4 years. Based on the bacteriological test, the percentage of milk of No. 1 quality produced during that time has increased from 72 percent to 87 percent. Based on the sediment test, the percentage of No. 1 milk has increased from 15 percent to 22 percent during the period.

Under the Montana program, scorings were made of butter, ice cream, and cottage cheese samples from each manufacturing plant in the State, and district meetings were held with plant personnel to discuss the scorings and the measures which should be taken with respect to plant operations and equipment to maintain quality more effectively. Large numbers of retail stores also were checked to appraise the adequacy of refrigeration facilities for storing and displaying dairy products. On the basis of these observations, improvements were suggested in handling and display methods.

Market information releases containing dairy market data were issued periodically by Indiana, North Carolina, Minnesota, and Wisconsin. A monthly publication entitled "Economic and Marketing Information for Indiana Farmers," containing information on dairy marketing, was distributed by Purdue University to about 18,000 persons. Wisconsin issued monthly about 6,500 copies of its dairy marketing newssheet, "Wisconsin Dairying," providing supply and demand data. One feature of this publication is the report on prices of milk going into the various outlets, both on an actual and equivalent 3.5 percent butterfat basis.

Poultry and Eggs

Activities to assist egg producers and handlers in maintaining egg quality through informational and demonstrational assistance programs were carried on in Alabama, Alaska, Arkansas, Illinois, Kansas, Kentucky, Maine, North Carolina, Oklahoma, Tennessee, and Virginia.

In Kansas, work was done in cooperation with the Extension Service and the Kansas Farm Bureau in developing a voluntary graded egg marketing program;

the program resulted in the establishment of 37 buying stations for graded eggs handling about 100,000 dozen eggs per week. These graded eggs brought a premium to producers of approximately 5 cents per dozen.

Egg producers and dealers in Illinois were assisted in complying with the State egg law through 72 egg grading demonstrations held over the State and attended by about 3,000 individuals. Similar demonstrations were given in North Carolina to 165 egg dealers so that they would be better able to comply with the North Carolina 1955 Egg Marketing Act. In addition to the use of grading demonstration schools to stimulate egg quality improvement, the Oklahoma Department of Agriculture conducted an extensive sample grading program on eggs offered for sale at the retail level. A grade analysis of each packer's product, based on the sample taken, was published periodically.

Quality improvement work for poultry was conducted by Louisiana, Oklahoma, Maine, and West Virginia. U. S. Department of Agriculture standards and specifications for inspection were established in Oklahoma for ready-to-cook poultry, and assistance was given poultry processors in grading their poultry to meet these requirements. Specialists in Oklahoma also are working with processors to encourage poultry purchasing on a live grade basis and to reduce damage due to bruising.

In West Virginia approximately 11 million broilers and turkeys were handled under the State department of agriculture's grading, inspection, and auction selling program. Participating producers received an estimated price premium of 1 to 2 cents per pound for broilers sold in this manner.

Louisiana encouraged the use of official grades in marketing poultry through grading demonstrations at the processor and retailer levels. Three processing plants have adopted the grading program.

Programs to expand egg and poultry outlets and increase consumption were carried on by Indiana, Illinois, Wisconsin, North Carolina, Kentucky, Oklahoma, Maine, Louisiana, Virginia, and West Virginia.

The Wisconsin Department of Agriculture cooperated with the Wisconsin Poultry Improvement Association in sponsoring the January Egg Month merchandising program. Activities included the distribution of 6,000 point-of-sale posters to 6 national and regional chains and other retailers operating in the State, participation in 5 television and several radio programs, and arrangements to encourage greater use of eggs through the Wisconsin School Lunch Program.

In Indiana, assistance in moving large supplies of broilers was provided through a special campaign, the Hoosier Fried Chicken Fiesta, held May 11-31, 1955. This campaign was under the guidance of the Farmer-Retailer Committee and was conducted in cooperation with such groups and agencies as the Indiana Farm Bureau, Indiana Retail Grocers and Meat Dealers' Association, Indiana Chain Store Council, and Indiana Restaurant Association. The campaign helped to prevent a serious price break in broiler prices.

Promotion of poultry and eggs was carried out in Oklahoma through retail displays, exhibits at fairs, and cooking schools held in cooperation with home demonstration agents.

Technical assistance to poultry processors and egg handlers in improving their operations was provided by Illinois, North Carolina, Kentucky, Virginia, and Wisconsin. North Carolina specialists assisted 8 poultry processing plants to remodel plant layouts and to improve processing procedures. Kentucky helped develop local egg grading stations, which handled about 125,000 dozen eggs last year. In Virginia, poultry processors were advised regarding plant procedures which had been successfully adopted by other broiler producing areas in reducing processing costs.

Market information programs were conducted in Arkansas, Illinois, Wisconsin, Maine, West Virginia, Tennessee, New York, South Dakota, Kansas, Nebraska, Washington, Virginia, Oklahoma, and Louisiana. In Illinois, current quotations were released on prices being paid in the principal poultry areas of the State; also, placements of broiler chicks and eggs set were reported weekly. Tennessee issued a daily release on prices being paid for eggs and broilers locally, in nearby States, and at important terminal markets. The release has stimulated the marketing of eggs on a graded basis and brought about a more orderly flow of broilers through market channels. Maine and New York carried on an f.o.b. market reporting service for turkeys during the holiday season. This service was particularly helpful to small producers in those States without regular market contacts.

Fruits and Vegetables

Marketing service activities for fruits and vegetables were conducted last year by a majority of the States in the matched fund program. There were 15 States which engaged in activities to expand outlets and increase consumption of these commodities; 19 States and Territories carried on grading, handling, and packing demonstrations and other activities to improve and maintain quality; 10 States provided technical assistance in improving marketing facilities and equipment; and 16 States collected and disseminated new basic data and special market information on fruits and vegetables.

Illinois, Indiana, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, and West Virginia issued special information releases to shippers, truckers, and other buyers, covering location, anticipated supplies, and harvesting dates of locally produced fruits and vegetables. Mississippi, for example, circularized some 2,500 buyers over the country with pamphlets containing detailed maps of each watermelon-producing area in the State and giving the anticipated volume of watermelon production, the harvesting dates, and the names and addresses of the various local shipping agencies. This service assisted in moving the large melon crop, resulting from a greatly expanded acreage, at a net profit to growers of $70 to $100 per acre.

In Illinois, a brochure, "Your Guide to Illinois Fruits," showing production areas and the names, addresses, and phone numbers of producers,

was issued just ahead of the marketing season. During the season special releases on the various fruit and vegetable crops were sent biweekly to some 6,500 buyers in 24 States. This service proved particularly effective in meeting an emergency marketing situation caused by hail damage to apples in one area. Within a few hours after the hail, a special release was flashed to buyers indicating that harvesting of the hail-damaged apples would begin immediately. Shortly following the release, sufficient trucks came into the area to move the 70,000 bushels of damaged apples at prices about double that being paid by processors.

Several States sponsored and participated in consumer informational programs to encourage greater use of products in plentiful supply. Radio, television, and newspapers were used by such States as Maryland and Indiana to provide consumers with information on supplies, quality, and prices of "best buys," and on how to select and prepare the various fruit and vegetable items. In Indiana, these activities were a part of a general farm products promotion program carried out under the auspices of the Farmer-Retailer Committee, which coordinated its efforts with national promotional drives under the USDA Plentiful Foods Program.

Maine and Wisconsin were successful in expanding the volume of potatoes marketed under "State label" programs. Because of the marketing service assistance provided by Maine under the State trademark program and the increase in demand for washed potatoes which this brought about, the number of commercial potato washers in the State increased from 12 in 1953-54 to about 100 in 1954-55. Washed potatoes now represent about 16 percent and 10 percent, respectively, of Maine's rail and truck shipments. In Alaska, the consumption of local potatoes was expanded as the result of providing the trade with a prepackaged and washed product.

Information on trade and consumer preferences for asparagus and boysenberries was collected through nationwide market surveys conducted by the California Department of Agriculture. This information helped the asparagus and boysenberry industries in California to develop more effective marketing programs.

Strawberry growers in Kentucky and Illinois were given demonstrations of proper picking, grading, and packing methods to improve the market acceptance of their product. Interest in proper techniques was particularly high in the new strawberry areas of Kentucky, where tobacco acreage removed under the control program has been planted to this crop. In Illinois, the lack of knowledge of official strawberry grades has hampered growers in their efforts to expand markets.

Michigan fruit and vegetable growers selling over the Benton Harbor market were assisted in complying with grade marking requirements through demonstrations of how to re-mark lots of produce to conform to the actual grade or to regrade to bring the lots up to the designated grade.

Apple "rings," composed of several packinghouses operating jointly for grading and marketing purposes, were used successfully in Virginia to assure buyers a steady supply of uniformly sized and graded apples throughout the marketing season.

Work in California on minimum quality standards brought about a change, effective in September 1955, in the minimum legal maturity color requirements for navel oranges, which is expected to result in the harvesting of oranges of higher quality and to improve demand. California continued work during the year on projects designed to provide more dependable methods of determining maturity for various deciduous fruits and to develop more adequate and up-to-date minimum legal pack specifications for vegetables.

Mississippi and North Carolina provided assistance in establishing efficient assembly and trading centers for fruits and vegetables. The Raleigh Farmers Market, which opened officially on September 23, 1955, is expected to provide facilities for handling each year about $12 million worth of North Carolina's products. Last year, $8 million worth of Mississippi fruits and vegetables moved through the Farmers Central Market at Jackson and the several seasonal branch markets established in areas of concentrated production. Market development work in West Virginia is primarily at the local community level. The two community markets in operation last year provided convenient points for the assembly and sale of the many small lots of produce originating on nearby farms. Other communities in West Virginia have requested similar facilities. Specialists in Virginia and Maryland assisted in the development of plans for new produce terminals in cities of those States. Maine provided technical assistance to potato packing plants in remodeling handling facilities and installing potato washers to reduce costs and improve the pack.

A citrus tree census initiated in Florida is expected to provide a basis for more dependable seasonal production estimates and projections of production trends. The census is about one-half completed; it will provide detailed information on the location, size, variety, rootstock, degree of damage from diseases, and general condition of the trees. The previous tree census was taken in 1934. In Illinois, Michigan, and North Carolina, county and local area information was assembled and disseminated on apple and peach tree numbers by variety and age. Cherry and plum trees and grapevines also were counted in Michigan. California assembled data on acreage, production, utilization, plantings, and removals of all deciduous fruits, tree nuts and bush berries.

California continued its evaluation of objective sampling methods as a basis for improving production estimates of Clingstone peaches and Bartlett pears. Similar work was initiated in Oregon on filberts.

An experimental apple market news reporting service, provided by New York included prices received f.o.b. shipping point, by variety, grade, size, and type of package, the movement in and out of storage, and storage holdings.

In Ohio, preliminary steps were taken to establish a reporting service covering truck receipts of fruits and vegetables on the Columbus market.

North Carolina started the collection of data on the commercial and noncommercial harvested acreage and production of sweetpotatoes by local areas. It also established a service of collecting and reporting monthly farm and nonfarm storage stocks of sweetpotatoes during the marketing season.

Livestock

Assistance in improving methods and practices of marketing livestock was provided in Alaska, Indiana, Kentucky, Maryland, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. In North Carolina, 5,000 feeder calves were sold through 11 organized demonstrational sales at a price premium of at least 2 cents per pound. Similar special sales were held in the State for slaughter and feeder cattle, purebred cattle and hogs, and lambs. North Carolina specialists also assisted in marketing 1,400 cattle direct to packers on a grade-and-yield basis. These cattle brought from 1½ to 3 cents per pound over the live weight prices offered by packer buyers.

Livestock specialists in West Virginia assisted producers in grading and classifying cattle, calves, lambs, and hogs sold at regular sales of the 22 auction markets in the State. Cattle which had been properly graded and classified brought at least $3 per hundred pounds more at these sales than cattle not properly graded and classified. In addition to this assistance, specialists sponsored 45 special sales for feeder cattle, feeder calves, and purebred ewes and rams at these auction markets.

As a result, in part, of the livestock grading program in Indiana, 12 secondary markets in the State are buying hogs on a live-graded basis with a fixed differential for U. S. No. 1 hogs. Indiana continued its demonstrational programs on the grading of live hogs and feeder cattle and informational programs dealing with seasonal price behavior and the price outlook on the different grades of livestock. About 6,000 producers participated in these programs.

The Alaska Department of Agriculture gave technical assistance to the Alaska Native Service in developing a program for marketing reindeer meat. This product has an annual sales volume potential of $50,000 to $100,000.

Maryland and Kentucky continued their livestock conservation programs which were designed to reduce injury to livestock during the marketing process. Kentucky sponsored a general meeting on this subject which was attended by about 300 livestock auction managers, auction employees, truckers, processors, and other interested persons. The adoption of improved methods for handling livestock was also encouraged in Kentucky through an informational program. Illustrated posters were placed at auctions and leaflets were distributed to producers and auction employees describing the losses that occur from bruising and methods of prevention.

Promotional assistance in expanding beef sales was provided by the Kansas State Board of Agriculture in cooperation with the Kansas Livestock Association and other agencies. Information was provided to wholesalers, retailers, and consumers on methods of keeping, preparing, and serving meat. Retailers and wholesalers were reached through personal contact; consumers were reached through the usual information media, by displays at fairs and other events, and at retail stores. In Indiana, the Farmer-Retailer Committee, composed of Indiana producers, retailers, farm organization representatives, and staff members of Purdue University, conducted promotional programs to move plentiful supplies of meat and meat products. These programs were closely coordinated, whenever possible, with the USDA Plentiful Foods Program.

Basic data on livestock supply and demand trends are being assembled and disseminated by 19 States. These data are needed by producers, marketing agencies, and processors in developing effective marketing programs. Quarterly sow farrowing reports, which originated in Iowa, are being issued by such other States as Illinois, Minnesota, Wisconsin, Indiana, Ohio, Missouri, Kansas, and South Dakota. This service now constitutes a regional coordinated effort providing hog producers and processors with information essential to a sound marketing program.

Iowa and Wisconsin continued the monthly reports of hog and cattle marketing forecasts and the assembly of data on age of hogs marketed, size of pig litters and the seasonal pattern of calf births.

In South Carolina work was continued on developing sampling methods for making annual estimates of kinds and classes of livestock on a county-by-county basis. County estimates of cattle numbers from 1945 through 1955, based on this work, have been prepared for early release.

Wyoming compiled and published from brand inspection records recent data on the interstate and intrastate movement of cattle. Much of this information included the county of origin, destination, month of movement, and method of transportation.

Market information releases covering cattle, hogs, and lambs were issued periodically in Iowa, South Dakota, Kentucky, Virginia, Texas, Ohio, New Jersey, and Illinois. Several States are now reporting livestock prices at local and interior markets to supplement terminal market reports.

Grain

Technical assistance in building, installing, and operating improved processing and storage facilities was provided in Virginia, North Carolina, Maryland, Kentucky, South Carolina, and Indiana. Specialists in North Carolina assisted 37 grain dryers in proper procedures for controlling temperatures to maintain grain quality, 48 firms in the proper use of moisture meters, and 40 mill and elevator operators on problems of grading, handling, and marketing grain. In North Carolina, technical assistance also was provided grain handlers in establishing about 850,000 bushels

of storage and drying capacity. These accomplishments have been reflected in increased prices to producers of from 5 to 20 cents per bushel, representing an additional annual income of about $1,200,000 to North Carolina grain producers. Technical assistance provided elevators in remodeling to accommodate bulk handling methods has resulted in an additional income to North Carolina producers of about 5 cents per bushel on corn and 10 cents per bushel on soybeans.

As a basis for determining the equipment and storage facilities needed to efficiently market Kentucky grain, that State made a survey of the condition and capacity of existing handling, drying, and storage facilities in each county. This survey indicated the need for additional storage in the Henderson area. This storage is now under construction.

Marketing services designed to demonstrate and encourage the use of official grain grades in buying and selling were provided by Kansas, Maryland, North Carolina, South Carolina, and Virginia. In Maryland, 600 cars of soybeans were federally inspected on the Eastern Shore as a part of the program to improve grain marketing. An exhibit featuring the procedures and equipment used in grain grading, moisture testing, and use of representative sampling techniques was set up at the Maryland State Fair. Maryland specialists also provided a service of testing and standardizing moisture meters for grain handlers.

North Dakota initiated a grain sanitation program emphasizing the elimination of contamination by rodents, birds, and insects. In carrying out this project, specialists conducted 4 countywide rodent control programs and made plans to conduct such programs in 7 other counties. They held 8 grain sanitation meetings attended by nearly 1,000 persons, presented 38 demonstrations before about 800 farmers, and made about 1,700 contacts with farmers, elevator operators, county agents, and other persons interested in grain sanitation.

Maryland continued its weekly Maryland Grain and Hay Report, which provides producers and grain dealers with current information on the local grain storage space situation and local grain and hay prices.

Kansas and South Dakota assembled basic data relating to the availability, on a county basis, of on- and off-farm storage for the 1955 grain crops. Kansas provided information to wheat growers, grain dealers, and millers on the protein content and test weight of the wheat crop, by counties, as the crop moved to the first receiver. In this quality survey, 5,277 carloads of wheat were tested. Eight special news releases were issued during the marketing season so that the information would be available on a current basis.

Indiana provided basic information on the marketing situation for corn, soybeans, and wheat to assist producers in determining when to sell and whether or not to store. Articles on marketing soybeans and wheat were published in the "Economic and Marketing Information for Indiana Farmers" and disseminated to more than 20,000 Indiana producers. It is estimated that the more orderly

marketing of soybeans resulting from this program meant an additional return of 15 cents per bushel to producers, or a total added income of nearly $7 million.

Tobacco

North Carolina and West Virginia continued to provide tobacco farmers with technical assistance in sorting, grading, and otherwise preparing tobacco for market, in accordance with official grades, and in displaying tobacco on the sales floor. The objective of this service is to enable farmers to grade their crop so as to maximize the proportion falling within the higher priced grades. Specialists in North Carolina held 94 grading demonstrations which were attended by about 2,000 producers. North Carolina farmers following the recommended grading practices are reported to have received from $2 to $8 per hundred pounds above the average price. There is a continuing need for marketing services to assist producers in tobacco grading because of the introduction of new varieties and the changes in buyers' requirements for types of cigarette tobacco. Wisconsin carried on a daily market news service during the marketing season for Wisconsin tobacco. Information on volume of sales by types and grades and on prices received by farmers was secured daily from the tobacco markets in the State, summarized, and presented on the morning radio market report of the Wisconsin Department of Agriculture.

Cotton

North Carolina, Virginia, and Louisiana continued marketing service projects which were designed to improve the marketing of cotton and cottonseed. Through a fiber quality testing program, North Carolina encouraged the selling of cotton by producers and ginners on the basis of fiber properties. Specialists collected cotton samples weekly from a representative number of gins in the State, conducted tests of fiber length, strength, fineness, uniformity, and maturity, and released the results bimonthly to cotton mills and merchants. In connection with this testing work, specialists made 37 visits to cotton mills, attended 5 textile and 2 spinner-breeder conferences, and also maintained daily contact with the USDA Classing Office. This testing service has been of assistance to mills which do not have cotton testing equipment and to buyers in locating cotton of desired quality. The program is reported to have resulted in an improved marketing situation for North Carolina cotton.

Both North Carolina and Louisiana provided technical assistance to cotton gins in the respective States in improving the operation of gins, in remodeling old gins, and in planning new facilities. These services have improved operating efficiency and reduced substantially the quantity of rough "prep" cotton. Annual savings to cotton farmers from this improvement are estimated at about $1 million in North Carolina and approximately $100,000 in Louisiana.

Nursery Stock

California, Michigan, and Minnesota are conducting programs to improve the acceptance and marketability of nursery stock through the development of

techniques and procedures for virus-free certification of trees and vines. Almonds, apricots, cherries, grapes, nectarines, peaches, plums, prunes, and strawberries are the commodities now included in these programs. The greatest progress to date in methodology development has been with cherries. In California, the techniques for cherries are now considered commercially satisfactory, and a virus-free registration and certification program is being proposed to the nursery industry. The program is to be financed from fees.

SUMMARIES OF MARKETING SERVICE WORK BY STATES AND BY PROJECTS

ALABAMA

Technical assistance in improving and maintaining seed quality--(RM:c-3550-35)

The quality of seed produced in Alabama has shown definite improvement during the past few years as a result of the assistance program developed under this project by the State department of agriculture. Seeds produced in the State are usually better adapted to local climatic conditions than seeds from other areas, but in many cases have not met the quality requirements of the farmer.

Assistance in this field has been concerned with helping seed producers to improve harvesting and cleaning operations and with helping the 157 commercial seed processors in the State in adopting and using improved equipment and better methods of processing and seed analysis.

During 1954-55, technicians made 343 visits to seed processing plants in the State to evaluate equipment problems, make recommendations for improvement, and obtain and analyze seed samples. Nearly 750 samples were obtained and checked for quality during the year. Of these samples, 264 were subjected to detailed laboratory analysis, which involved 1,036 separate tests. In addition, the technicians made 1,500 moisture tests of seed peanut samples sent in by processors. These tests revealed that about 300 lots contained excessive moisture for proper storage. Processors were informed of these results so that they would be aware of the need for further drying of the lots affected.

Work with the 51 cottonseed delinting and treating plants in the State has yielded encouraging results. The plants are doing a better job of delinting the seed and of applying poison.

Contacts with processors during the year and extensive observations of shelling operations have revealed an urgent need for improved methods of peanut seed processing. In cooperation with several processors and equipment manufacturers, the Department is planning tests to determine the possibilities of "automation" in processing peanut seed.

Improving quality and expanding market outlets for poultry and eggs--
(RM:c-2550-62)

The poultry industry in the State has undergone rapid expansion over the last decade; as a source of farm income poultry and poultry products now rank second to cotton. During this period of growth little attention has been given to the problems of improving the quality of eggs and poultry and of expanding the outlets for these products.

Following the enactment by the Alabama Legislature of an egg marketing law in April 1955, the first phase of this project--that of assisting producers, wholesalers and retailers in improving egg handling and grading methods--was initiated. This law requires that eggs sold in the State be graded and sized in accordance with prescribed standards, and that the containers in which they are sold be so marked or identified. Egg grading schools and demonstrations have been conducted in nearly all counties of the State as a means of providing assistance to the industry in complying with this new regulation.

ALASKA

Improving quality and handling methods, expanding outlets, and furnishing market information for vegetables, dairy products, eggs, and meat--
(RM:c-2550-51)

Alaskan producers are handicapped in marketing because of the lack of organized marketing agencies. The responsibility for proper grading and packaging local produce, so that it can be sold in competition with imported products from the States, rests largely on the producer. Continued emphasis was given during the year to programs designed to assist producers, and such marketing agencies as exist, in improving the grading, packaging, and handling of locally grown farm products.

Much of the assistance was concentrated on potatoes, the major cultivated crop. Progress in improving the grade and pack of this commodity has developed to the point that locally grown prepackaged and washed potatoes of U. S. No. 1 grade were generally available last year in Alaskan markets. Work was undertaken to extend the marketing season for local potatoes through the summer months by providing assistance in building suitable storages and in adopting proper storage procedures. This activity added an estimated $50,000 to producers' income.

Advisory work was continued on the packaging, storing, and marketing of other vegetables. Practically all carrots are now being packed in Pliofilm bags and have found a ready market in competition with imported carrots.

A survey of egg quality and handling practices was conducted during the year to provide a basis for developing a marketing assistance program in this field. This survey showed that imported eggs often were two grades below that labeled. The principal grade defects in local eggs were stains and bloodspots,

(Alaska)

both of which are easily detected. The services of a poultry marketing specialist from the U. S. Department of Agriculture were secured to help initiate the program. This specialist helped in the survey, trained personnel in the proper interpretation of egg grades and standards, and assisted in the development of a proposed egg grading regulation. Several meetings were held with producers, packers, and growers to inform them of the results of the survey, to discuss remedial actions, and to demonstrate improved grading and handling methods.

Assistance was provided the Alaska Native Service in an experimental project to market in Anchorage reindeer meat from the isolated areas of western Alaska. If successfully established, this program would add $50,000 to $100,000 of income annually to these areas. A survey was made of the beef marketing situation on Kodiak Island which indicated that beef cattle numbers had increased and that organized slaughter and inspection facilities were needed to properly market the meat. Plans are being made to assist in this effort.

Other service activities were concerned with the preparation of displays for fairs and other group meetings to encourage improved grading, better packaging, and increased use of fresh produce. The activities also included the distribution, among 450 growers and retailers, of a monthly market news bulletin covering the price and supply situation for the various local and imported commodities.

ARKANSAS

Quality program for eggs--(RM:c-3550-10)

During the year assistance was provided the State Legislature in drafting egg grading and labeling legislation, which was enacted into law. Previous work under this project had much to do with this action to improve the quality of eggs sold in the State. After the passage of this legislation, a program was initiated to explain, through group meetings and the distribution of printed material, its grading and labeling requirements to producers and egg handlers.

Progress in improving egg quality under this project is being reflected in an increase in the number of graded eggs in the markets, a decrease in the volume of current receipts sold as graded eggs, and greater trade promotion of quality eggs.

CALIFORNIA

Improving the quality and packaging of fruits and vegetables--(RM:c-3550-6)

The program of technical assistance to the fruit and vegetable industries in the State was continued during the year with special emphasis

(California)

on (1) developing quality standards for topped carrots packed in cellophane bags, (2) measuring the effect of temperature changes on the soluble solids content of grape juice, (3) determining the effect of frost damage upon the quality of oranges, (4) establishing picking color standards for navel oranges, (5) developing procedures for measuring watermelon maturity, and (6) making a survey of Bartlett pear sizing practices. The latter is a new activity under the program.

In recent years the California carrot industry has revolutionized the method of packing this commodity. The practice of topping and packing the carrots in 1-pound film bags has largely displaced the old method of packing bunched carrots. This change in marketing practices has given rise to the problem of developing appropriate standards of quality and packaging. So far, nearly 1,100 samples of film-packed carrots from 28 different packing plants have been taken for analysis and study in this connection. On the basis of these observations, the State Department of Agriculture developed a set of recommended minimum standards and consulted with the industry in regard to their adoption. The recommendations were incorporated into a bill. The bill passed the legislature without opposition but was not signed into law because of the last-minute opposition of a few shippers who felt that certain provisions were impractical. Indications are, however, that legislation in this regard will be adopted in the near future.

During 1955 approximately 180 additional tests were made to measure the influence of temperature upon the soluble solids readings of grape juice. This work, which was initiated in 1954, is important to the grape industry and State officials in connection with the minimum maturity requirements for grapes of the Thompson Seedless and Cardinal varieties. Growers and shippers have experienced difficulty in complying with these maturity requirements because of variations in the soluble solids content of grapes, that is, juice, picked at different periods of the day and held at different temperatures. The result of the tests made to date indicate that the soluble solids content is influenced slightly by temperature, that is, grapes with a relatively high temperature show slightly lower readings than grapes, from the same samples, with relatively low temperatures. This work is being continued since the findings to date have not been sufficiently conclusive to establish specific recommendations for a solution to the problem.

At the request of various groups within the citrus industry, a study was carried on in 1954 to determine the need for changing the technique of scoring damage to oranges from freezing and other causes and for making appropriate changes in the minimum standards of quality for freezing damage to conform to the standards prescribed in the California Code. The present procedure involves the making of a transverse cut through the center of the fruit and measuring the percentage of the area of exposed pulp which is dry or desiccated. Under the minimum standards, freezing of navel oranges is considered serious if 20 percent or more of the exposed pulp is so affected. The industry has been interested in finding out if a more exact technique for scoring, involving measurements of damage in other portions of the fruit could be developed.

(California)

In the study, oranges from groves in several growing areas were obtained and analyzed. Nearly 7,000 individual fruits were included in the 1954 sample. The study was continued in 1955, but the results had not been tabulated when this report was written.

The program to improve picking color standards for navel oranges was completed during the year, and a report thereon was submitted to the citrus industry. The results of the program were used as a basis for drafting legislation, increasing the minimum color requirements for navel oranges. This legislation was passed and became effective in September 1955. This new law requires (1) oranges with a soluble solids/acid ratio of 8 to 1 to have at least 25 percent of the surface of a minimum characteristic color according to color plate No. 13L2 of Maerz and Paul Dictionary of Color, first edition 1930; and (2) fruit with a ratio of 10 to 1 or higher to have a minimum as indicated by color plate No. 21L6 of the above dictionary. The previous regulations under the California Code required navel oranges to have at least 25 percent (surface area) of a characteristic but somewhat lighter color than is now required. It is expected that the application of these new color requirements will be of considerable assistance in marketing the crop.

There is a need in California for a positive objective test to determine watermelon maturity. The present Code requires that the flesh have not less than 75 percent red color, but difficulties have been experienced in applying this requirement in many of the early producing areas. Growers in these areas are inclined to rush harvesting, and it has been necessary to reject large quantities because of immaturity. The development of a more positive objective test would be helpful not only in the application of minimum standards but also in operating the optional grading program. Tests were made on melons of the Klondike, Klondike R7, and Peacock varieties from Riverside and Merced counties during the 1953, 1954, and 1955 seasons. Progress to date indicates considerable promise for improving the maturity determinations of this commodity. The tests show a definite and consistent relationship between flesh color and soluble solids in the juice from the edible portion. The use of a color chart or standard with which to measure the color of the flesh, or a minimum standard based on soluble solids, or a combination of the two factors, offers possibilities in achieving the objective of the program.

A pear-sizing study was started last year in the three major pear shipping areas of California. The object of the study was to observe present sizing practices of standard packed Bartletts so that these practices could serve as a basis for determining appropriate size markings on loose-packed containers. This program is of particular interest at this time with the advent of automatic filling and closing machines.

New basic information--fruits, tree nuts, and bush berries--(RM:c-4550-10)

Results of the annual county-by-county survey of new plantings and tree removals covering tree fruits and nuts were published in bulletin form in the summer of 1955. This information, in conjunction with the periodic complete

enumerations of acreages, is basic to the development of seasonal forecasts and estimates for these commodities by the Federal-State Crop Reporting Service. Extensive use also is made of the data by growers, cooperatives, and other marketing agencies, processors, financial and transportation agencies, and Federal and State marketing order boards. At the urgent request of organized groups of producers, the annual survey of commercial bush berries was continued and a report published thereon in March 1955. This survey embraced data on acreage, production, utilization, and total value for the various bush berries.

The program to develop objective methods of forecasting production of Bartlett pears and cling peaches was carried forward during the year. This work is being conducted in cooperation with the Bartlett Pear and Cling Peach Advisory Boards and the Giannini Foundation of Agricultural Economics. It is designed to provide a basis for more dependable early season forecasts of production. Improved estimates are needed by these boards in the administration of marketing order programs covering these commodities and by the respective industries in planning and conducting marketing operations.

Three surveys were made during the year on each commodity to obtain the needed objective data. One of these was conducted in June 1954 in the major pear-producing counties to obtain a sample of immature pears. These pears were counted, weighed, graded for potential cull percentage, and sized. Following this survey, a size increment survey was conducted at weekly intervals until harvest to measure growth rates. The third, or harvest, survey was made of mature pears from sample trees in the same blocks used in the size increment survey. These mature pears also were counted, weighed, graded, and sized to provide a set of relationships with the early season set and size of fruit. Analysis of the survey data obtained under this program to date indicates the practical possibilities of an objective approach to estimating production of Bartlett pears and cling peaches. An objective method has been developed for preparing experimental forecasts for these commodities, but additional work is needed in testing the method to determine if the dependability of the forecasts can be improved.

Expanding markets for asparagus, bush berries, and lima beans--(RM:c-2550-10)

Since the inception of this project in 1948, the California Department of Agriculture has made marketing surveys covering 12 commodities: Apples, asparagus, lima beans, dried figs, prunes, raisins, dates, ripe olives, turkeys, lemon products, honey, and bush berries. These surveys have been requested by advisory boards and industry groups to provide information needed in developing more effective marketing and merchandising programs and in budgeting the approximately $6,500,000 of promotional funds available to the advisory boards operating State marketing order programs. Specific objectives of the surveys are to find new uses and new opportunities for distribution; detect trends of demand; discover new ideas about packaging, merchandising, and promotion; and to spot obstacles preventing greater and more efficient distribution.

(California)

During the year the findings of the lima bean survey were published in a report entitled "Expanding the Consumption of California Standard (Large) Lima Beans." Two of the important findings from this survey were that canned limas have better prospects than dry for sales expansion and that, in order to secure trade cooperation and participation, promotional programs must be planned far in advance with completed plans in the hands of distributors at least 90 days prior to the promotional period or event. The industry is now using this information in planning its promotional program.

Two new surveys--covering processed asparagus and bush berries--were initiated and completed during the year. Among the important findings developed by the asparagus survey were: (1) That the California industry needs to develop a better balance in its pack by increasing the proportion of the lower priced utility style of product; (2) that a majority of consumers, particularly among the younger age groups, are not familiar with canned white asparagus, the industry's most important product; (3) that the industry needs to consider adjustments in its distribution pattern to offset losses of canned asparagus sales in eastern markets because of competitive conditions and the trend toward increased consumption of frozen asparagus; and (4) that the industry needs to test the containers which are showing promise in competing areas but which it does not now use. Through the California Processing Asparagus Advisory Board, the industry is already making use of the survey results to clarify the terminology for white asparagus and to test the possible use of a 13½-ounce glass jar for canned green and white spears.

The bush berry survey uncovered a number of problem areas in the marketing of boysenberries--the production of this berry has expanded rapidly in California in recent years. Survey results indicated that some brands of boysenberry products are lacking in quality. On the basis of this finding, the industry has sponsored a quality improvement program. The technical aspects of the program will be conducted by the USDA Western Utilization Research Laboratory and the University of California Department of Food Technology. The survey also brought out the need for efforts to educate institutional users and consumers in the various uses of boysenberries and the best methods of preparation.

The findings of earlier surveys on other commodities are still being used by the respective industry groups in planning and conducting their promotional programs.

Developing methods of certifying nursery stock--(RM:c-3550-27)

This project is being conducted in cooperation with a number of State and Federal agencies. The objective of the project is the development of practical methods for detecting, identifying, and avoiding virus diseases affecting nursery stock so that a program of certifying such stock as being virus free may be initiated and carried forward. If successful, the program would have great economic importance to the California tree fruit, nut, and grape industries affecting about 840,000 acres of valuable orchards

(California)

and vineyards. Approximately 100 nurserymen produce nursery stock to maintain these vast plantings, and during the 1954-55 season produced nearly 4 million yearling and June-budded stone fruit trees, including almonds, and about 4,200,000 grapevines. Nearly half of these nurserymen, who produce a majority of the stock, are participating in the program.

Activities under this project were carried on last year in 24 counties and were devoted to cherries, peaches, nectarines, almonds, plums, prunes, apricots, and grapes. Work was continued on the following phases: (1) Investigation of nurserymen's needs for propagating materials; (2) examination of sources of propagating material for the presence of virus diseases; (3) indexing of sources to confirm field diagnosis; (4) improvement of diagnostic methods; (5) assembling information on diseases occurring in budwood source plantings and determining the feasibility of establishing special budwood source plantings; (6) study of possible changes in nursery practices to avoid the spread of virus diseases; and (7) investigation of the diseases found during the work and their host ranges.

Meetings, demonstrations, and field trips were held with State and county nursery inspectors and nurserymen for training purposes in the detection and recognition of virus and virus-like diseases. Definite progress is being made in improving the quality of nursery stock, especially of cherries. The program also has stimulated an increased demand for virus-free stock. A premium price is being paid for virus-free cherry stock and some nurserymen have had difficulty in supplying the demand. The cherry work has proceeded to the point where a plan for nursery stock registrations and certification seems practical.

The State department of agriculture has developed a proposed plan for consideration by the industry. Under this proposal the University of California would furnish trees for the nurserymen's mother blocks. The budwood sources from which these trees are produced would be indexed by the State department of agriculture and once the trees are established in the mother blocks indexing and visual inspection of them would be continued each year. Mother block trees found to be virus-free would be registered by the department and numbered. Nursery stock produced from such budwood sources would be eligible for certification. Rootstock for carrying out this program (establishment of mother and increase blocks) would be furnished by the University of California and would consist of virus-free Mahaleb seedlings.

COLORADO

Improving the quality of dairy products--(RM:c-2550-61)

In cooperation with the Denver Milk Producers Association and the Dairy Department of Colorado A & M College, the State department of agriculture instituted last year a comprehensive program to assist producers and milk plants in improving the quality of milk and milk products. To determine the

(Colorado)

extent and character of the quality problem and the effect of bulk handling on quality, marketing specialists conducted two flavor surveys on milk and ice cream. These surveys revealed a serious off-flavor and off-odor condition of milk produced on a number of farms in the Denver milkshed and milk plant practices which tended to perpetuate the quality problem.

In order to initiate corrective measures on dairy farms, specialists, often accompanied by fieldmen from the dairy plants, visited over 250 farms in the Denver area. These visits were made to identify individual producer problems, assist in their solution, and train the fieldmen in quality improvement procedures so that the benefits of the program could be expanded and placed on a continuing basis.

Specialists also worked with 18 of the milk plants serving Denver on problems of quality control in their plants. One phase of this work was to train men at the milk receiving platforms in quality determination to prevent milk of unacceptable quality from entering the plants. These plants had been following the practice of accepting poor-quality milk, which they diverted into milk products.

Since the establishment of quality control at the receiving platform would give rise immediately to the problem of rejected milk, specialists assisted the Health Department in developing regulations to control the transfer of rejected milk to other plants in the area.

Two of the plants with which the specialists have been working are in the process of developing a plan to include flavor as one of the price-determining factors for milk received from producers. If successful, this plan probably would spread to other plants and would provide an incentive for production of quality milk.

Progress in conducting this program to date has revealed a number of problem areas and an urgent need for programs to: (1) Bring about mastitis control in Colorado, (2) develop a uniform flavor-improvement procedure, and (3) improve some industry practices which now tend to discourage quality improvement.

Improving marketing practices for peaches--(RM:c-2550-46)

The Colorado Department of Agriculture, in cooperation with the Mesa County Peach Board of Control, issued a report on the results of an 8-State survey of trade opinion regarding the acceptability of Colorado peaches in the markets of those States and improvements in marketing peaches needed to increase demand. According to the report the trade felt that peaches in early shipments from the area were somewhat immature and undersized and that something should be done to eliminate the practice of shipping such peaches. In the opinion of the wholesalers and retailers interviewed both the bushel and box pack needed certain improvements. Apparently the bushel pack is not prepared so that the "ring face" will hold in transit, and as a result it is

(Colorado)

unattractive when it reaches the market. The trade pointed to the lack of uniformity in size of peaches packed in boxes as being an objectionable feature. The opinion was expressed by some receivers that truck shipments arrived in more salable condition than did rail shipments. With respect to the question of prepackaging peaches in consumer-size units 1/ trade opinion was generally adverse.

FLORIDA

New basic information for citrus fruits--(RM:c-4550-19)

In Florida, the trend in citrus production has been sharply upward since the early 1930's. In recent years, it has been very difficult to develop dependable seasonal production forecasts and to make meaningful projections of production in view of the fact that the most recent citrus tree census was taken in 1934. Dependable forecasts are needed by producers, processors, and marketing agencies to plan their marketing programs effectively. Projections of production by varieties and areas are very helpful to growers in determining the number and kinds of trees to plant and to processors and marketing agencies in determining where and when to build new processing plants.

To provide a basis for improving the estimates, a new citrus tree census was initiated in August 1954 under the joint sponsorship of the Florida Department of Agriculture and the State Plant Board. Data being gathered for each tree include the location, size, variety, rootstock, degree of damage from disease, and other factors. Some of these data, especially with respect to the incidence of disease, are being collected by State Plant Board inspectors in the course of their regular duties. Results to date indicate that the survey will yield valuable data on the prevalence and locations of the virus disease "spreading decline." Technical supervision of the census is being provided by the Florida Agricultural Experiment Station through the Department of Agricultural Economics and by the Federal-State Statistician. The Citrus Experiment Station at Lake Alfred is also assisting in an advisory capacity.

Field work in connection with the survey has been completed in 6 and partially completed in 7 of the approximately 35 commercial citrus counties. Preliminary reports of the survey results have been issued for 4 counties. It is expected that the survey will be completed next year.

HAWAII

Encouraging the use of grades and standard containers, improving quality, and expanding outlets for native fruits and vegetables--(RM:c-2550-35)

Meetings and demonstrations were held in cooperation with the Extension Service (1) to describe and demonstrate the proper picking maturity and

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1/ Consumer-size units or packages are packages intended for sale to consumers.

(Hawaii)

grading and packing techniques for a wide variety of locally grown fruits and vegetables; (2) to discuss the need for using uniform shipping containers and the provisions of a new law requiring the early development and adoption of such containers; and (3) to explore the feasibility of establishing consumer grades and labeling for consumer-size packages. More than 300 growers and dealers attended the meetings and demonstrations. Models, photographs, and slides proved to be very effective aids in clearing up questions among those present.

Public hearings are to be held next year on standard shipping containers and on consumer grades. The growers who adopted the recommended methods achieved significant economies in packing operations and received higher prices for their products. One producer alone is estimated to have realized an additional $1,750 from his celery operations by adopting recommended packaging methods.

ILLINOIS

Improving methods of handling and expanding market outlets for fruits, vegetables, poultry and eggs—(RM:c-2550-16)

Continued emphasis was given to the program of assisting producers and egg handlers in the techniques of proper grading and candling of eggs. Expansion and intensification of activities in connection with enforcement of the State egg law has brought forth many new requests for this type of assistance. In cooperation with the Extension Service, Southern Illinois University, and local industry groups, a total of 72 demonstration meetings were held over the State during the year to demonstrate grading and candling procedures. The meetings were attended by over 3,000 persons. A number of the demonstrations were made before vocational agriculture and home economics students. This age group showed enthusiastic interest in the program.

To help meet the need for better market outlets for eggs, particularly in southern Illinois, marketing specialists assisted in conducting a survey among producers in that area to obtain data needed to determine where additional markets were most needed and the best type of market to establish. As a result of this work, new egg buying stations have been established at several points in the area. These new stations are buying on a graded basis and have stimulated other buyers to improve buying methods. One of these stations is handling about 2,500 cases per week. The success of this program has created interest in better egg marketing in other areas of Illinois.

Special activities to increase poultry and egg consumption were continued during the year, including the January Egg Month Campaign, Illinois Junior Chicken of Tomorrow Contest, State Fair Egg Show, and special exhibits at industry conventions.

(Illinois)

The special fruit and vegetable information program developed in cooperation with the Illinois Fruit Council was conducted again this year. This activity involved the sending of periodic releases concerning the availability of various fruits and vegetables to about 6,500 truckers and potential buyers over a 24-State area. These releases provide buyers with the names, locations and telephone numbers of growers having fruit for sale. In the emergency situation which occurred last year extra effort was made to acquaint buyers with developments. As the result of a severe hail in one area last fall three apple growers suffered hail damage to their entire crops consisting of about 70,000 bushels. On the day following the hail, which was a Friday, a flash release was sent to the buyers on the mailing list and by the next Monday sufficient trucks had come into the area to move the entire quantity. The three growers were able to dispose of the damaged fruit to these truckers at an average price of about $1.25 per bushel, or 65 cents per bushel above the processing price which otherwise would have prevailed.

Numerous letters were received during the year from growers and produce buyers expressing appreciation for this type of service. An annual publication entitled "Your Guide to Illinois Fruits" was again distributed just prior to the marketing season to the buying trade as a cooperative activity with the Fruit Council. This brochure includes a map of the State showing production areas by zones and a list of the names, addresses, and telephone numbers of fruit growers and dealers.

Experimental market news-poultry and livestock--(RM:c-2550-50)

Decentralized livestock marketing has created an urgent need in Illinois for market news coverage of the numerous auction and other local livestock markets in the State. Producers need price information based on transactions at these local markets to make intelligent marketing decisions. The 78 auction markets in the State are important sources of feeder cattle and pigs, but they have not been patronized by Illinois feeders to the extent considered desirable because, until recently, current market information from these markets has not been available. To meet this need, a plan of reporting was developed in cooperation with the Illinois Community Sales Association, and a weekly report was instituted in October 1954 providing information to producers and buyers on supplies, prices, and marketing conditions at these auction markets. For the purposes of this report, the State was divided into 3 areas--northern, central, and southern. The report is still being distributed on an experimental basis to a limited list, and further work is in progress to improve the representativeness of the area samples and to perfect a better method of obtaining the information from the auctions.

A majority of the slaughter livestock marketed each year by Illinois producers is sold directly to packers at country point markets and therefore bypasses the terminal markets. Market news coverage for the latter markets is provided by the USDA, but these are becoming less useful to livestock producers in making marketing decisions. Plans are being developed in cooperation with specialists of the College of Agriculture, University of Illinois,

(Illinois)

to establish an experimental market news service covering a number of interior markets.

The weekly broiler placement report initiated last year was continued with favorable results. This service which now includes the reporting of broiler prices in competing States is being enthusiastically received by broiler growers.

Improving fruit and vegetable marketing methods--(RM:c-3550-12)

Vegetable production in southern Illinois is carried on largely by small-scale producers who in many cases have attempted to do their own grading, packing, and selling. Although these producers have been able to produce quality products, they have been at a disadvantage in marketing because of the inefficient methods employed. The result has been declining production.

In 1954, at the request of a group of growers in one of the southern counties, marketing specialists assisted in the formation of a marketing cooperative named the "Little Egypt Vegetable Growers' Cooperative" to cooperatively grade, pack, and sell the cucumbers and peppers produced by the membership.

Specialists also assisted the association during that season in obtaining proper equipment and gave demonstrations throughout the season in grading according to U. S. grades and in proper handling, packing, and loading. During its first season, the association was able to realize about $1 and 65 cents per package, respectively, more for its packs of cucumbers and peppers than were received for those packed on the farm in the usual manner.

Assistance was provided the association again this past season and was broadened to include two other producer groups in the area. As a result, the area opened the 1955 season with three plants equipped to prepare, grade, and pack these vegetables properly. These plants had a ready demand for their packs at reasonably good prices despite the generally unsatisfactory marketing conditions due to excessive supplies. Large quantities of the farmer-packed cucumbers had to be consigned to the terminal market with substantial losses to the shippers.

The two new groups who came into the program installed hot waxing equipment. By having a waxed product to sell they were able to obtain a net of about 20 cents per bushel more for their growers than even the cooperative was able to return. The uniformly graded, washed, and waxed peppers packed by the 3 plants in the program brought from 25 cents to 50 cents more per bushel than farmer-packed peppers.

During the season, specialists prepared a set of 40 color slides to illustrate the proper procedures for efficient cucumber packing operations.

(Illinois)

At the request of sweet corn growers in one area, specialists initiated a survey to determine what improvements these growers should make in equipment and packing and marketing methods to broaden the market outlets for their corn. Growers in this area have been selling directly to certain outlets with relatively fixed volume requirements, and since they lack outside contacts they have been unable to dispose of the surplus produced in some seasons. The survey indicated that during the local season precooled corn had a price advantage of about 60 cents per package (5 dozen ears) at Chicago and 70 cents at St. Louis over corn packed and iced in the usual manner. The precooled corn also was in greater demand, volume wise, and therefore could be sold more readily. Since precooling can be done for about 20 cents per package, the adoption of this method of handling corn appears to offer a profitable alternative to the grower group which requested assistance. Further assistance will be given this group in deciding what changes to make in their marketing methods to improve efficiency and to gain access to outside markets for surplus production.

New basic data-fruits and vegetables, livestock and farm timber products--(RM:c-4550-37)

The semiannual timber products report, which was initiated in 1952, was continued during the past year. This report provides farmers for the first time with needed information on the variety of forms in which timber can be sold and the prices these products are bringing. Average prices and price ranges are reported by areas of the State for the various products, including commercial veneer, container veneer, cooperage, sawlogs, tie cuts, pilings, mine props, pulpwood, and fence posts. The report is being favorably received by farmers, sawmill operators, and foresters. Numerous inquiries have been received from other States indicating an interest in developing this type of reporting elsewhere.

The quarterly reports on sow farrowings, calf crop, breeds and types of livestock, and cattle marketings, initiated in March 1954, have been continued on an experimental basis. The value of these reports in disclosing significant trends is expected to increase as background data are accumulated. For example, the data so far obtained for these reports indicate that gains are being made in the beef breeds of cattle and in the production of meat-type hogs.

Apple and peach tree numbers in the State have been changing so rapidly that annual surveys are necessary as a basis for reliable production estimates and as guides to producers in their orchard operations. The annual survey this past year was made after the completion of planting and released just prior to the initial production estimate for the season.

Further progress was made during the year in rounding out the series of county data which are in great demand. A county series of annual numbers of laying hens and egg production was being prepared. This would complete the basic series on the production of livestock and livestock products. Exploratory work was started on a county series covering annual marketings of crops

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and livestock. Information from these county series is being put to practical use by groups interested in establishing processing and handling facilities for farm products.

Expanding market outlets for dairy products--(RM:c-2550-63)

In cooperation with the Illinois chapter of the American Dairy Association, the State department of agriculture initiated, late in the year, a program to stimulate the consumption of fluid milk and milk products. Promotional programs, directed by local committees, composed of industry representatives and members of various civic groups, were conducted in two cities of the State. The cooperation of hotels, restaurants, grocers, and the schools was sought in urging greater use of dairy products. Experience gained in these programs will be helpful in extending the promotional effort to other areas. A television program on dairy product promotion is being filmed in cooperation with the University of Illinois as an aid in carrying out these local programs.

INDIANA

Providing special market information and improving marketing efficiency for fruits and vegetables, grain, and livestock--(RM:c-2550-11)

To assist in the movement of locally produced fruits and vegetables, the "Produce Supply Report" was mailed weekly to about 600 produce buyers during the past season. This report gives information regarding the anticipated time of movement, volume, and quality of the various items. In addition, coordinated consumer information releases were sent to 26 daily papers and 80 radio stations to alert consumers to the supply prospects for each commodity and when each was expected to be available at the retail level. Special emphasis was given to products in plentiful supply.

Technical assistance to fruit and vegetable growers and shippers in improving handling practices and marketing methods was continued with particular emphasis on prepackaging problems. Producers of greenhouse tomatoes and lettuce were assisted with problems of packaging and merchandising. A special bulletin was issued to the trade during the spring on the greenhouse tomato supply situation. This bulletin was instrumental in moving the crop at favorable prices. Major growers and shippers were continuously booked in advance for their supplies.

The service program in grain marketing involves two lines of activity: (1) Dissemination of market information to farmers to assist them in making marketing decisions and (2) technical assistance to grain elevators and feed mills in improving operating efficiency. Six radio programs with statewide coverage were conducted during the year to inform farmers of the current and prospective marketing situation for corn, soybeans, and wheat. Two news articles--one relating to wheat marketing and the other to soybean

marketing--were prepared and published in the periodical "Economic and Marketing Information for Indiana Farmers," which is distributed to more than 20,000 farmers in the State. In cooperation with county agents, three series of training schools in grain marketing were held in 14 counties with about 900 farmers participating.

The technical assistance phase of grain marketing work in Indiana is comparatively low. During the year, meetings were held with the managers and other personnel of 16 grain elevators and feed mills in 13 of the counties to discuss possible improvements in operations. These firms do an annual business of about 14 million dollars. Two short courses were held with elevator personnel relating to elevator operating problems. Each course lasted 2 weeks. Also, during the year assistance was provided (1) in establishing a new elevator which was needed to permit more orderly and profitable marketing of grain in the immediate area, and (2) in the adoption of time-saving procedures in two elevators.

Work was started during the year with approximately 225 frozen food locker plants in the State to help them in reducing costs. Increased competition from grocery stores and small packing plants, together with greater use of home freezers, has materially affected the volume of business and earnings of these plants. Specialists worked with a number of plant managers to plan ways of cost reduction through reducing wasted time, improving plant layout, and increasing the efficiency of specific processing operations. District meetings were held with about 250 plant personnel from 175 plants to discuss the findings of a recent research study on Indiana locker plant operations. Specific problems of plant management, merchandising, and customer relations were intensively studied by the 40 plant managers who attended the 2-day clinic conducted by specialists on these subjects. It is too early to determine what influence this program will have in stabilizing this industry. However, a number of plants have made adjustments which have enabled them to increase the volume of business and improve earnings.

In the livestock marketing field, major emphasis was devoted during the year to beef cattle and hogs. The long-time program to encourage the marketing of meat-type hogs was implemented by live hog and carcass demonstrations and meetings with farmers. These meetings and demonstrations were held in cooperation with the Extension Service. Progress in this field is reflected by the fact that some 15 secondary markets in Indiana now buy hogs on a live-graded basis with fixed price differentials for U. S. No. 1 hogs. On five of these markets on which records are available, the number of U. S. No. 1 grade hogs sold during the first half of 1955 increased 21 percent over the same period of 1954. Other secondary markets are beginning to recognize variations in type and finish in a less specific way.

A number of grading demonstrations were held in advance of the normal purchase season for feeder cattle to assist feeders in recognizing the different grades and selecting feeders best suited for particular feeding programs. As an integral part of this demonstrational program, feed-lot tours, usually on a county basis, were conducted during the feeding season to acquaint feeders

with the basic principles of marketing fed cattle. These demonstrations were held in close cooperation with extension specialists in animal husbandry. Special meetings were held in cooperation with the Extension Service in the early fall and spring in the important cattle feeding sections of the State to inform feeders of the cattle marketing situation. Such other media as news stories and radio and television programs were used to keep livestock producers informed of marketing developments.

In a joint activity with the Ohio Agricultural Extension Service, assistance was given in organizing a lamb pool in eastern Indiana where lambs in the area could be assembled, graded, and sold on a graded basis. A number of these pools are now operating in the State, through which producers have been able to obtain a premium of $1 to $1.50 per hundredweight for their lambs.

Developing an orderly pattern of marketing agricultural products--(RM:c-2550-17)

Many of the farm products produced in the State are subject to annual and short-term surpluses, resulting in low prices to producers. In an effort to do something about these problems, the Farmer-Retailer Committee, composed of representatives from producer organizations, marketing agencies, and Purdue University, was formed to coordinate the activities of the various marketing agencies in the State. Objectives of the program are to encourage production of varieties and quantities more acceptable to the trade and consumers, provide producers and marketing agencies with better market information, and assist in moving plentiful commodities through trade channels by coordinated state-wide effort. The outstanding example of promotional assistance during the year was the Hoosier Fried Chicken Fiesta, held May 11-31, 1955. Broiler placement figures indicated large supplies during May, and at the request of the Indiana State Poultry Association, a coordinated assistance program was undertaken by specialists and such cooperating agencies as the National Poultry and Egg Board and USDA. Retail grocers and restaurants throughout the State were informed of the impending supply situation and encouraged to stress the sale and use of broilers. A consumer information program was coordinated with these activities. These efforts helped in moving the large broiler supply and in averting a serious price decline.

Demonstrating uniform grading procedures and improving quality of dairy products--(RM:c-2550-36)

Present methods of buying milk and cream in the State are detrimental to the interest of both the dairy industry and the consumers. Grades and standards for buying, other than the compulsory minimum standards for health, are determined by the individual plant operators and consequently vary from area to area and plant to plant. Continued assistance was given to the industry during the year to improve grading and testing procedures involving 180 surveys of milk-grading and 225 of cream-grading procedures. Flavor grading was checked in 60, sediment testing in 90, and bacteria determinations in 40 cases. Samples of ice cream, market milk, and cottage cheese submitted by some 110 plants were scored and analyzed for composition and bacteria count,

and the results were discussed with the processors. A similar service was provided buttermaking plants. Milk plants over the State were given assistance in developing uniform grading procedures and in reporting on a uniform basis. About 90 meetings and grading schools were conducted during the year for dairy plant personnel on grading and testing procedures. Practically all the cream graders in the State were reached by the 10 cream-grading schools held. The 11 milk-grading schools attracted 455 licensed milk graders, or about two-thirds of those in the State. Progress under this project is indicated by the fact that the percentage of U. S. Grade A butter manufactured in the State has increased from 12 percent 5 years ago to 22 percent last year. During the same period, the quantity of milk rejected annually by cooperating dairy plants decreased from 5,390,000 pounds to 3,700,000 pounds.

Technical assistance to vegetable canners in quality improvement--(RM:c-2550-55)

Twelve canners participated during the year in the quality control and sanitation program sponsored under this project. Technicians for this work were trained at the Annual Canners Technical School held prior to the canning season. These technicians were assigned to the cooperating canners and they maintained a continuous check on product quality and sanitation in the plants, kept plant owners informed of the standards being attained, and made recommendations for correcting unsatisfactory performance. Technicians also made daily sanitation inspections of the plants to which assigned, and submitted to the plant manager a weekly summary of the percentage of compliance with the Indiana Canners Sanitary Code. A specialist from Purdue University supervised the work of the plant technicians to assure uniformity in procedures and satisfactory performance of the service.

Improved and rapid procedures for detecting and measuring insect contamination were developed under the project. This new procedure, known as the "Rapid Dye Method," was reported to the industry in an article published in "The Canner," and reprints were provided to approximately 100 canners. Further applications of this method in quality control were made available to the industry in an article in "Food Engineering" entitled "New Staining Technique Enables In-Stream Control of Infestations." Recommendations for preventing insect contamination of tomato products also were made available to Indiana canners. Use of these new quality control techniques will result in a higher quality product for the consumer and improved returns to the grower and canner.

New market information-quarterly sow farrowings--(RM:c-4550-6)

Indiana and 8 other Corn Belt States issued reports on the pig crop as of March 1 and September 1 to supplement the regular semiannual reports. This more frequent reporting, which was initiated in Iowa in 1954, became necessary with the trend to earlier farrowing and more rapid finishing of hogs to marketable weights. Information from these reports furnishes the basis for a

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much more precise evaluation of marketing patterns and will prove valuable to both producers and packers in planning their operations.

IOWA

New market information and data for livestock, eggs, and milk--(RM:c-4550-32)

Under this project, the State department of agriculture has provided livestock producers and marketing agencies with new and improved reports on livestock marketings to assist them in planning their marketing programs. A monthly report, inaugurated in 1951, provides information on the number of hogs and cattle marketed from Iowa farms during the preceding month and forecasts such movements during 2 subsequent months. This report is in great demand and is distributed widely through the usual news facilities and by direct mailings to producers. Continued efforts were made during the past year to improve the accuracy and reliability of the information contained in the report.

In 1954, the Iowa Department of Agriculture also initiated a quarterly report on sow farrowings to supplement the regular semiannual reports and to provide hog producers with more timely information for adjusting to changes in prospective marketing patterns. The response to this report has been very favorable, and by the end of the year 8 other hog-producing States--Ohio, Indiana, Illinois, Wisconsin, Minnesota, Missouri, South Dakota, and Kansas--had developed similar reports. These other States and Iowa exchange information through their Federal-State statisticians, and this information provides the basis for the issuance of a regional report.

The State department of agriculture continued its work of developing and appraising new data basic to the improvement of the present systems of reports and to the issuance of new reports much in demand relating to the seasonal pattern of calf births and the age of hogs marketed. It appears that the project has developed almost to the point where a quarterly pig crop report could be instituted as an integral part of the quarterly farrowing report.

Basic data were assembled during the year for publication of annual county data for recent years on such items as numbers of layers on farms, egg production, cows milked, milk production per cow, feed fed dairy animals, prices for dairy products, and milk utilization.

KANSAS

Improving quality of dairy products--(RM:c-2550-18)

Continued assistance was given during the year on a statewide basis to some 78 cheese plants, 44 butter plants, and 15 condenseries in improving and maintaining the quality of dairy products. Periodic inspections were

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made of plant equipment and operations to detect unsanitary conditions and other causes of quality impairment. Samples of incoming milk and cream, and of the processed products at various stages in processing, were taken and analyzed to help spot the sources and types of contamination. Demonstrations were held with plant personnel to help them in improving sanitation practices and processing procedures. The quality of milk and cream received at the plants was checked and if rejection was necessary the producer and shipper were assisted in identifying and correcting the conditions responsible for poor quality.

Improving marketing methods and expanding outlets for eggs, fruits and vegetables, wheat, meat, and dairy products--(RM:c-2550-19)

The market news program for eggs was continued with 13 egg buying stations in different areas of the State cooperating by furnishing price information. This information was disseminated to producers and egg buyers in the State through newspapers and by radio. The service has had a stabilizing effect on egg prices and, in conjunction with the program to encourage voluntary egg grading, has stimulated more buying on a graded basis. There are now 37 stations buying and selling on the basis of official grades, and these stations are handling about 100,000 dozen eggs per week. Prior to these programs there was practically no buying by grades.

As a result of the recent enactment of an egg grading and labeling law, considerable demand has developed and is expected to increase for technical assistance in improving egg-handling facilities and methods. Assistance in this field will be provided in cooperation with the Transportation and Facilities Branch of the Agricultural Marketing Service. This work got underway about July 1, 1955, and assistance in planning egg-handling facilities was provided four concerns.

Under the grain quality improvement program, specialists are cooperating with other interested groups and agencies in encouraging the buying and selling of wheat on the basis of its milling qualities. This is believed to be a necessary step to provide growers with the incentive to produce the varieties having desirable milling qualities. The development of a better method of quality determination is needed to make this program successful.

The fruit and vegetable program was continued on much the same basis as last year. Producers and shippers were encouraged to give greater attention to quality in packing for market and to utilize shipping point inspection where practical. By adopting marketing practices recommended by the Division of Marketing, the southwestern Kansas cantaloup area has achieved a substantial increase in both volume of sales and per unit returns. Wholesale produce dealers, retailers, and various State institutions were encouraged to buy on the basis of official grades and to adopt improved methods of handling. This program was conducted in cooperation with Kansas State College, the Kansas Division of Institutional Management, the United Merchandising Institute, and local agencies and groups.

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To encourage greater meat consumption, the Division of Marketing, in cooperation with the Kansas Livestock Association and other interested agencies, advised consumers of proper and effective methods of buying, keeping, preparing, and serving meat. Personal contacts were made with retailers to secure their aid in providing information to consumers. Retailers, both independent and chain, gave active support to the program. The press, radio, and television services cooperated by devoting considerable public service time to the promotional effort.

The market expansion program for milk and milk products was continued in cooperation with various organizations in the dairy industry and Federal and State agencies. Information with respect to nutrition and the food value of milk was provided to various educational, institutional, and consumer groups. Retailers and distributors were assisted in improving the effectiveness of their promotional programs and merchandising activities. Progress was made in promoting the use of vending machines in schools, cafeterias, office buildings, etc. Such machines are now in operation in 53 towns and cities over the State, representing a gain of 18 centers during the year. Indications are that the program, through the concentrated effort of the agencies involved, has substantially increased the use of milk.

New market information and basic data for grain, cattle, poultry, and eggs--(RM:c-4550-7)

Reports of the 1955 wheat quality survey were made in cooperation with the State Grain Inspection Departments of Missouri and Kansas. The information was disseminated to producers and the grain trade in 8 special releases providing information on a county-by-county basis of the test weight and protein content of wheat moving to market. On each Tuesday and Friday morning during the harvest season, a preliminary report was made available to the press services in time for their 11 a.m. wires, and a more detailed report was mailed in the afternoon to a special mailing list. A summary of the survey was prepared at the end of the season and made available to the press and interested persons. The information on quality and on wheat prices by grades, which is obtained and disseminated in connection with the special grain price reporting service, provides producers with information needed in making marketing decisions. The quality survey is also extremely useful to grain buyers in locating the qualities of grain desired. The Kansas Wheat Improvement Association and the Extension Service collaborated in the survey. Preceding the 1955 quality survey, a special survey of the wheat acreage by varieties was made by counties. The results of this survey were released July 2, 1955; they showed that 60 percent of the 1955 acreage was seeded to 3 varieties with desirable milling qualities which had been introduced recently. This survey is conducted annually in cooperation with Kansas State College to measure progress in the adoption of new and improved varieties.

To provide the basis for more effective service to the poultry industry and to improve marketing regulations under the recently enacted egg law, the Division of Statistics, in cooperation with Kansas State College, conducted a

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survey of egg handling and marketing methods and practices during the year. This survey disclosed that only one-third of the eggs sold by producers are sold on a graded basis; that 44 percent of producers have their eggs picked up at the farm, and only 44 percent market their eggs more often than once a week. The monthly egg and poultry price reports were continued during the year giving price information by grades of eggs and by classes of poultry for the use of producers, processors, and others interested in the poultry industry. This price information has been an important factor in stimulating interest among producers in the quality improvement and grading program.

Prices of beef cattle by classes were obtained on a sample basis from terminal market commission firms, interior packers, and country auctions and reported on a monthly basis to producers and other interested persons. Reports as of March 1 and September 1 on sow farrowings and marketings of hogs also were issued during the year. These supplement the regular reports which are based on the June 1 and December 1 rural carrier surveys and give hog producers more timely information on current and prospective trends in hog supplies and marketings. The results of the special survey on monthly calf births in 1954 were reported during the year. This information provides producers and the livestock industry generally with important clues to future marketings and trends in cattle numbers.

KENTUCKY

Improving marketing methods and expanding outlets for poultry and eggs, grain, livestock, honey, fruits and vegetables, and dairy products--(RM-c-2550-2)

To provide a basis for assisting producers in developing a sound program for establishing a cooperative egg market in Louisville, the Kentucky Department of Agriculture assembled information on the number of commercial egg producers in the area, volume of eggs that would likely move through the market initially, the potential production in the area, and the marketing facilities presently available to producers. The results of the study showed the economic need for such a cooperative market but indicated that it would have better chances of success if Indiana as well as Kentucky producers were offered membership. Meetings were held in 20 counties in the 2 States to familiarize producers with the plans for the market. At the close of 1954-55 the articles of incorporation and bylaws of the cooperative, had been drawn up and producers having 85 percent of the volume needed for efficient operations had formally indicated their intention of marketing through the organization. The cooperative was named the Kentuckiana Egg Marketing Cooperative.

The Kentucky egg program also included (1) grading demonstrations, (2) assistance in the establishment and operation of local egg grading stations, (3) assistance to dealers in selecting and installing cooling units, (4) discussions of egg grading and quality on the radio and in news articles, (5) operation of egg quality booths at county fairs; (6) promotion of egg shows, and (7) distribution of leaflets which summarized points to remember in grading,

candling, and packing eggs. The 125,000 dozen eggs handled through the new local grading stations established and operated with the advice and guidance of marketing specialists brought producers an average premium of 12 cents per dozen. The success of the egg grading program sponsored by the State department of agriculture in south central Kentucky was primarily responsible for the establishment of a new outlet in Louisville. The egg dealer providing this outlet assembles eggs from 20 pickup points in the State, grades them in accordance with Federal standards, and pays for them on a graded basis. His paying prices average about 5 cents per dozen above current receipt prices. Marketing specialists also brought together the data necessary for modernizing the provisions of the Kentucky egg law.

Approximately 30 of the 68 livestock auctions regulated under the Kentucky Livestock Yards Act of 1953 were surveyed during the year to evaluate the need for improved marketing methods and facilities. Results of the survey indicated that many animals passing through the auctions were bruised from rough handling and improper equipment at some stage in the marketing process. As a means of initiating corrective measures, a livestock conservation program was inaugurated. The first organized activity sponsored by the State department of agriculture under this program was a 20-county mass meeting on livestock conservation matters. The meeting was attended by over 300 auction managers, auction employees, and other persons interested in the livestock bruising problem. To implement the program further specialists made about 125 contacts during the year with auction personnel and truckers to advise them with regard to proper livestock handling methods. Fourteen auctions improved their handling methods as a result of the program. Information on the need and methods for achieving livestock conservation was disseminated to the livestock industry, including livestock haulers, through 5 illustrated articles prepared for newspapers and the distribution of some 400 leaflets and bulletins. Some 125 photographs of auction facilities were taken during the year to illustrate efficient equipment as contrasted with poor equipment. These photographs will be used in the format of a new publication being planned which is to be entitled "Facilities Digest."

Approximately 700 wool growers and dealers in the State received the weekly wool market report prepared by the Kentucky Department of Agriculture covering prices being paid locally and in nearby States. The information from this report was also disseminated through the press and radio stations. Following the wool marketing season, a weekly report covering sources and prices of replacement ewes and feeder lambs was furnished to the farmers on the mailing list for the wool report. There was an urgent need for this type of report since most farmers need assistance in marketing sheep and lambs and in locating replacement stock. This was evidenced by the fact that many farmers not on the wool report list requested the latter report.

To provide background information for a needed grain marketing improvement program in Kentucky, the State department of agriculture, in cooperation with the Transportation and Facilities Branch of the Agricultural Marketing Service, conducted during the year a survey of grain marketing facilities and marketing methods. The survey included data, now being summarized and analyzed, on such

items as type of plant, storage capacity, space occupied, kinds of grain handled, type of cleaning, drying and turning equipment, testing and grain grading practices, and grain handling problems. A special study was made in one area to determine the need for new facilities. This indicated the need for additional space for 1 million bushels of grain. Assistance was provided in planning a new elevator for this area with modern grain handling equipment and conveniently located to take full advantage of both boat and rail transportation.

The special promotion program initiated during the preceding year for increasing milk consumption through the use of vending machines has resulted in the placement of about 350 units in schools, offices, and plants throughout the State. These machines have provided new outlets for approximately 500,000 pounds of milk per year, representing a farm value of nearly $20,000. The program has succeeded in attracting two large vending manufacturers to the State. Assistance is being provided to them in determining the areas where new units are needed. Information on the vending method was provided officials administering the National School Lunch Program to assist them in appraising the practicability of using such machines in that program.

The services of an experienced apiarist were secured during the year to assist beekeepers in improving marketing practices and obtaining new outlets for honey. This specialist held 20 meetings and made about 125 visits to farms to assist beekeepers in selecting proper equipment, adopting improved methods of packing and labeling, and securing new outlets.

During the year continued assistance was given the commercial sorghum syrup industry in improving product quality and in developing new outlets. In a survey of retail outlets made in 1953-54, poor quality of product and unsuitable and unattractive packaging were found to be the chief obstacles to increased distribution of this commodity. With these facts in mind, specialists assisted the Kentucky Sorghum Growers Cooperative, Hawesville, Ky., and individual producers in overcoming technical problems resulting in poor-quality syrup and in properly preparing and packaging the product for market. Members of the cooperative were advised regarding harvesting and cooking practices so that the syrup delivered to the cooperative's central plant would be suitable for blending. Assistance also was provided the central plant in improving its blending and processing operations and in finding outlets for about 10,000 gallons of surplus syrup having a net value to members of approximately $17,000. Through the program, the cooperative has developed outlets in 38 States under its "Old Kentucky Home Sorghum" label. Each container for retail distribution--1-, 1½-, or 5-pound glass jar--is labeled to show that it has been blended, graded, and packaged under the supervision of the State department of agriculture. The success of the cooperative in this venture has stimulated the development by an independent operator of a modern and efficient processing plant in an adjacent area. This operator produces syrup of exceptionally high quality and is experiencing a growing volume.

In cooperation with the University of Kentucky, the State department of agriculture conducted some 85 demonstrations and meetings to acquaint producers

with proper methods of picking, grading, and packing strawberries, green beans, cabbage, tomatoes, and onions. Information on proper marketing methods for these different commodities also was made available to about 3,000 growers through the distribution of "producer guides" published by the Division of Markets. These publications provide detailed recommendations for picking, grading, packing, and transporting the commodity. A training school for 30 tomato and snap bean graders was held to provide qualified personnel to operate new receiving stations in southeastern Kentucky. As a special service to the strawberry industry in maintaining and improving market outlets, the Department issued to about 1,500 individuals its 1955 edition of the "Kentucky Strawberry Buyers' Guide." This publication contained data on new areas, acreage for picking, production estimates, varieties, expected harvest dates, market and transportation facilities, and the names and addresses of buying agencies. A similar, but less detailed, buyers' guide covering vegetables was distributed by the Department. This particular report is much in demand because of the shifting geographical character of vegetable production in Kentucky. Service activities in connection with strawberry and vegetable marketing were instrumental in creating the new produce terminal at the Louisville market and in establishing a Federal-State market news service for fruits and vegetables on that market.

Obtaining and analyzing basic agricultural data--(RM:c-4550-2)

Results of the 1953 fruit acreage and fruit marketing survey were analyzed and published during the year. The report was mailed initially to a mailing list of 1,000 fruit growers and other interested persons. Since this original mailing about 100 new requests for the report have been received. Requests also have been received from other States regarding the planning and conduct of the survey.

LOUISIANA

Improving facilities and expanding outlets for dairy products--(RM:c-2550-1)

The State department of agriculture assisted the dairy industry of the State to achieve a better distribution of milk supplies between deficit and surplus areas and thereby to increase the proportion of Class 1 sales. Technicians of the Department in the course of their regular enforcement duties maintained daily contact with producers and milk plants in the various areas of the State. By reason of these close contacts they were able to provide producers and plants with timely information on supply and demand conditions for milk by areas. Monthly summaries are also prepared of total and class utilization of milk by areas and distributed to industry members. These monthly reports also provide the industry with detailed price information for Louisiana marketing areas and markets in other States. Technical assistance was provided milk plants in improving operating efficiency. Many dairy farmers producing milk of low quality were assisted in locating and correcting the conditions causing the problem.

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Improving distribution of Louisiana farm products--(RM:c-4550-11)

Data on the estimated acreage and production and locations of 25 farm products expected to be in plentiful supply were assembled and furnished to about 775 produce buyers over a wide area. This project was carried on in cooperation with the Louisiana Extension Service and facilitated the movement of commodities that otherwise would have sold at distress prices or that would have been wasted.

New market information for pecans--(RM:c-4550-13)

Pecan growers in Louisiana are handicapped in marketing their crops to best advantage because of the lack of a comprehensive and reliable source of price information. To provide the needed service, the State department of agriculture, in cooperation with the Extension Service, initiated a system of triweekly market reports during the 1954-55 season covering prices at the grower level in the various pecan areas of the State. Dissemination of the information was accomplished through press and radio facilities, and mimeographed reports were mailed to 500 growers, dealers, and other interested persons. The report had the effect of stabilizing the market and keeping prices in the different areas in proper alinement.

Technical assistance to cotton gins in maintaining fiber quality--(RM:c-3550-35)

Practically all of the 396 gins in the State were visited during the year to provide assistance in improving ginning operations and to observe the performance of new equipment installations. Upon request, technical assistance was provided to 142 gins for making adjustments in gin equipment and for other operating problems. Specialists also helped in an advisory capacity in the remodeling of 4 old gins and the construction of 1 new gin. Since this program started in 1951, the percentage of rough prepared cotton has been reduced from an average of 12.6 percent to 1.6 percent in 1954. Over the 4 seasons, 1951-52 through 1954-55, this improvement has meant over $500,000 of additional income to Louisiana cotton producers.

There are many complaints from the textile industry about excessive drying of cotton in the ginning process, which causes fiber damage and lost time in the mills. Plans are being made to provide a moisture-testing service to cotton gins to assist operators in determining the proper amount of heat to use for drying purposes. A new moisture-meter will be used in this work. Improvement in the operation of mechanical pickers also is needed to enable ginners to do a better job of preparation.

Improving marketing methods and expanding outlets for poultry and eggs--(RM:c-2550-53)

As a result of the activities under this project, 3 poultry processing plants, with a weekly volume of about 200,000 pounds of poultry, and 6 egg grading plants, handling nearly 70,000 dozen eggs weekly, have adopted the

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voluntary quality improvement program under the supervision of State department of agriculture specialists. Trained personnel are assigned to these plants to assist plant operators in grading the product to meet official standards and in solving the problems of packaging, handling, and merchandising. A specialist from the department makes regular visits to the plants to supervise this work and to advise regarding processing or merchandising problems as they arise. Through the improvements made in quality control, these plants have been able both to expand volume and to secure more favorable returns.

Nearly 900 visits were made to retail stores in the State to explain the poultry and egg quality program and to encourage improved handling and merchandising programs. In cooperation with the Extension Service, specialists assisted in presenting egg exhibits at various events and participated in 10 meetings, attended by about 350 producers and dealers, to demonstrate improved egg grading and marketing practices.

Improving the packaging, handling, and transportation of farm products--(RM:c-3550-2)

State department of agriculture specialists cooperated with package manufacturers and shippers in testing new packages for sweetpotatoes. Shipments packed in 2 different types of fiberboard cartons were observed from loading point through to the terminal market receiver. The tests indicate that one of the cartons has possibilities, but further tests will be made next year to determine if it should be recommended for commercial use. Similar work was conducted in the packaging of cucumbers. In this case the cooperation was with manufacturers of polyethylene bags and cucumber shippers in testing prepackaged consumer packs of the commodity. However, only a few test shipments were made during the year, and more extensive work in this field is needed before conclusive results can be obtained.

The department also provided technical data to producers of blackstrap molasses and to feed and fertilizer plants in connection with freight rate cases involving these products. The molasses case was concerned with an adjustment of freight rates from Louisiana to Texas and New Mexico points. The adjustments were granted, and for the first time molasses from Louisiana can be sold competitively in the other States. In the feed and fertilizer case, a proposal was before the Louisiana Public Service Commission to increase the intrastate rates on these items. The proposed increases were denied.

MAINE

Improving distribution methods and expanding market outlets for potatoes, poultry and eggs, apples, and dry beans--(RM:c-2550-13)

The Maine Department of Agriculture again cooperated with the Maine Potato Commission in a demonstrational program to promote the distribution of sized and washed potatoes in consumer packs. Assistance was provided in introducing

(Maine)

to the trade the special pack of Maine potatoes—Maine Mediums (U. S. Extra No. 1, 2½"-3¼", 60 percent over 2½")—through personal contacts with wholesale receivers and retailers in the marketing territory for Maine potatoes. These buyers were shown samples of this pack of washed potatoes in 10-pound polyethylene bags, and if interested were advised of the sources from which the pack could be obtained. Upon request assistance was given retailers in designing and arranging displays. Specialists observed the condition of shipments upon receipt in the terminal markets and investigated complaints of dissatisfaction with the shipments as a phase of program activities. In the various terminal markets specialists visited food editors to explain the program and to demonstrate the improved pack. These contacts resulted in much favorable publicity and indicated that this activity should be included as a part of a permanent promotional program. Assistance was also given the Maine Potato Commission in designing and constructing potato exhibits for use at various fairs, shows, and conventions. Trained personnel were furnished to staff these exhibits.

The results obtained from these promotional activities have been so outstanding that the potato industry has made available through the Potato Commission increased funds to expand and insure continuation of this demonstrational merchandising program. As an example of the results last season, one large chain organization, which featured Maine Mediums over a 2-week period in its Cleveland, Ohio, stores, was so impressed with the sales response that it introduced the pack into its other stores in Ohio, New York, Pennsylvania, and Michigan. The program has greatly speeded up the introduction of potato washers in the State—from 12 in 1953-54, the season the program was initiated, to about 100 in 1954-55. Last season, approximately 16 percent of the 33,317 carlots shipped by rail and 10 percent of the 7,427 carlot equivalents shipped by truck were washed potatoes.

During the year the temporary services of an agricultural engineer were secured to assist and advise potato shippers (1) in solving the technical problems of constructing and remodeling warehouses to accommodate washing and modern packaging equipment, (2) in planning storage facilities to condition potatoes for the manufacture of frozen french fries, and (3) in designing heating and ventilating systems for the condition of "chip" potatoes. The recommendations of the engineer have been, or are being, followed by several shippers in connection with construction or remodeling projects which they have completed or have underway. There will be a growing need for this type of technical assistance as the Maine potato industry modernizes its marketing methods. The Maine Department of Agriculture plans to sponsor such a program in cooperation with the Agricultural Experiment Station, the Extension Service, and the Maine Marketing and Handling Research Center.

The assistance of an experienced inspector was provided the Maine Agricultural Experiment Station to grade and to supervise the grading of potatoes used in conducting a research study on potato marketing in Boston, Mass.

(Maine)

Under the egg marketing program, service work was conducted during the year with producers, egg dealers, retailers, and restaurant operators to demonstrate proper methods of sanitizing, candling, handling, packaging, and caring for eggs. Candling and grading demonstrations were given various consumer and producer groups to acquaint them with the qualities of eggs packed under the State of Maine Blue, White, and Red labels. Information on the different grades and the best uses for each grade and size was provided restaurant operators. Progress under the program is being evidenced by an improvement in the quality of eggs being sold in the State, the increased use of grade and size labeling, and an increase in the number of producers and dealers being licensed to pack eggs under the State labels. Shipments to out-of-State markets have doubled since the program was initiated, as a result of the improved grading and packing methods being employed. The State department of agriculture assisted the Northeast Poultry Producers Council in holding its annual egg grading and quality school, which was attended by about 100 persons.

As a means of improving the merchandising of poultry, the State department of agriculture again conducted schools for wholesalers, retailers, restaurant operators, and their employees in modern methods of buying, handling, cutting, packaging, displaying, and pricing the various types and cuts of poultry. Processing plants packing poultry under the State of Maine trademark were assisted in improving product quality. Several large retailers now feature poultry from such plants. As more plants go into the production of eviscerated poultry, the use of the State trademark is expected to increase. Since the program started, there has been a noticeable improvement in merchandising methods and in the quality of poultry being offered for sale in the State.

The Maine Department again cooperated with the Maine Poultry Improvement Association in staging the Maine Broiler Festival. More than 13,000 persons attended this event, at which demonstrations of proper methods of cutting and preparing broilers for the barbeque pit were given.

At the request of the Maine Turkey Growers Association, the department set up and conducted a weekly price reporting service covering the 1954 Thanksgiving and Christmas seasons. These reports provided many small growers with price information which otherwise would have not been available to them. Cooperation also was given to the New England Crop Reporting Service in assembling information in Maine for the weekly hatchery and broiler chick report.

The Maine dry bean industry was assisted in overcoming a serious quality problem due to hurricane damage through acceleration of the artifical drying program started in 1953 in cooperation with the Maine Agricultural Experiment Station. Correct methods and procedures for artifical drying were disseminated by radio, television, and newspapers and through personal contacts with growers. As a result, over 75 percent of the Maine dry bean crop was of marketable quality. Assistance also was provided the dry bean industry in devising special kits to be used in developing new retail outlets. Over 1,000 of the kits were used in opening up new markets in Maine and adjacent States.

(Maine)

Price information was assembled from handlers of dry beans and made available to growers and others through the regular weekly market report.

The department advised the Maine Apple Committee and Pomological Society with respect to their apple promotional programs and assisted in designing exhibits for various events. A survey to determine the production of the different varieties of apples was conducted to provide growers and marketers with information needed in planning their marketing programs.

MARYLAND

Improved methods of grading and marketing livestock--(RM:c-4550-29)

Activities under this project are concerned with the following aspects of livestock marketing: (1) Official livestock grades and their use in appraising the market value of livestock; (2) improvement in market outlets for livestock and wool; (3) prevention of losses from bruising and rough handling; (4) grading of wool in accordance with official grades and improvement in the preparation of wool for market; and (5) demonstrational programs to encourage the marketing of meat-type hogs.

Livestock producers as a group are at a distinct disadvantage in marketing their livestock because of a lack of knowledge of livestock grades. Demonstrations of grading livestock in accordance with official grades were given at livestock sales, field days, and meetings held over the State.

In connection with the improvement of market outlets, the department of markets sponsored, in cooperation with the newly organized Maryland Beef Cattle Producers, Inc., the second in a series of annual feeder sales and grading demonstrations. Beef cattle producers consigned nearly 1,100 calves to this sale, a gain of about a third over the number consigned to the initial sale the preceding year. The grading of these calves for the sale was utilized as a demonstration to producers of proper weight and grade classifications. It is conservatively estimated that the producers participating in this sale realized an average of at least 2½ cents per pound more for their calves than they would have realized on the basis of previous selling methods. This would represent a total gain for the group of about $11,000.

At the request of wool producers, a wool pool marketing plan was again developed for the 1955 clip. This plan involved the setting up of 5 pickup points at convenient locations in the State for assembling, weighing, grading, and loading the wool for shipment. The wool was graded in accordance with official grades at the time of delivery so that the producer could observe wool grading procedures, become better informed regarding the technical bases upon which wool grades are established, and learn how to do a better job of preparing his wool for market. Sales through these pools amounted to about 85,000 pounds for which the participating producers received an estimated 10 cents per pound premium. The program also stimulated competition and

increased prices paid by local buyers and thus resulted in additional returns to other wool growers in the State.

The program of livestock conservation was carried forward by demonstrations, exhibits, and informational programs. The programs dealt with the economic losses from bruised, crippled, and dead livestock and the proper equipment and methods of handling to prevent such losses. Actual scale models of loading ramps, sorting pens, and other handling equipment were used in the demonstrations.

The program to encourage the marketing of meat-type hogs was continued during the past year. Work in this field was done cooperatively with the Extension Service and the Department of Animal Husbandry. The work included demonstrations, exhibits, and the distribution of informational material to explain the need for changing the type of hog produced to adjust to the shift in consumer demand to leaner pork and pork products. Six hog shows and sales were sponsored during the year to further this program.

Securing new basic information--(RM:c-4550-30)

During the year a publication was issued entitled "Rates and Services Report-Maryland Frozen Food Locker Plants." The report incorporated the results of a survey of plants which was conducted at the request of the Maryland Frozen Food Locker Association. Work was completed on a survey of the beef and dairy cattle industries in the State to obtain (1) information needed on annual feeder sales, (2) data on the relative proportions of Maryland beef coming from beef- and dairy-type animals, (3) the number of bulls by beef and dairy breeds for use in the artificial breeding program, and (4) the relative importance of various marketing channels used by beef producers and dairymen.

Improving the quality and merchandising of Maryland canned fruits and vegetables--(RM:c-2550-3)

This is a new project for which plans were developed during the year. Under it assistance will be provided individual canning plant operators in improving the quality and uniformity of their packs and in merchandising their outputs. The work will be conducted in cooperation with the Tri-State Canners Association. Maryland is an important producer of raw products for the canning industry. There are some 200 canners in the State, most of which are small operators who are at a competitive disadvantage in marketing under today's mass distribution methods. This problem is accentuated by the unsatisfactory and variable quality of the products packed by many of these canners.

The major activity during the year was the development of a plan for group marketing and trade promotion under a single label. Several conferences with industry members were arranged and conducted by marketing specialists to explore the possibilities of a number of plans which had proven successful in other States.

(Maryland)

At the request of the Tri-State Packers Association, the department of markets also conducted a survey of canners to obtain information on rates being paid for the various categories of plant labor. A report was made to canners on this subject.

Improving handling and marketing practices and expanding outlets for fruits and vegetables--(RM:c-2550-38)

Assistance to peach growers in improving consumer acceptance of their product was continued in 1955. Marketing specialists made arrangements for participating growers to dispose of tree-ripened peaches through selected retail outlets. Several sizes and types of containers were used to determine and demonstrate the most suitable package for marketing peaches picked at this stage of maturity. Consumers were informed through radio programs of the availability of these peaches.

The program to improve the market quality of fresh sweet corn was continued and expanded in 1955. Under this program participating growers staggered their plantings to assure a steady supply throughout the local season. Quality maintenance was achieved by controlling the temperature of the commodity during the marketing process. Growers used several methods for cooling the corn after picking, including the use of a hydrocooler by one grower, and utilized refrigerated holding rooms to maintain low temperatures on stocks not shipped to market immediately after picking and packing. Facilities for maintaining low temperatures were also employed in transporting, wholesaling, and retailing the corn. One cooperating grower packed his corn for market in wet-proof bags with crushed ice. This corn topped the Baltimore market and returned better than $1 per bag more than corn that was not iced. Other growers delivering directly to retail outlets under the program also received premium prices.

Marketing specialists assisted several groups in the planning and development of market facilities. They participated in the preparation of a report to the Governor concerning improvements in Baltimore produce markets, helped in the development of a local market in one of the counties designed as an outlet for nearby production of fruits and vegetables, and gave technical advice concerning problems of market relocation and means of increasing volume, to a Farm Women's Market in another county.

Improving handling methods and facilities for grain and hay--(RM:c-3550-24)

Activities under this project have contributed to a much needed expansion of elevator space in Baltimore. Additional facilities for 1,250,000 bushels of grain have been completed, and construction of facilities to store 2,000,000 more bushels is underway. As a result of the accomplishments made in this field, the critical shortage of terminal grain storage space in the State has been relieved to a large extent.

(Maryland)

Cooperative efforts with the Eastern Shore Feed and Grain Dealers Association to solve grain and soybean marketing problems were continued this year. Marketing specialists again conducted the highly popular program of testing and calibrating moisture determination equipment. In addition, they conducted a series of meetings, in cooperation with the Extension Service, with farmers and grain dealers on the general problem of moisture determination. There is much misunderstanding between farmers and grain dealers as to proper sampling procedures and the accuracy of moisture tests; the continuing need for educational and service programs to deal with the problem is indicated.

Work was continued on the program to reduce the foreign material content of soybean deliveries. Specialists sponsored one demonstration meeting for farmers and county agents on proper combine adjustments to reduce foreign material in harvested beans. Also, in cooperation with the Agricultural Engineering Department, material was distributed to farmers on this subject. A series of meetings was conducted to demonstrate the grading of soybeans in accordance with the new Federal grades. Particular attention was given at these meetings to the problem of "purple mottle." Dealers were given first-hand instruction in the matter of identifying this condition. These efforts were designed to prevent unjustified discounting in soybean prices due to confusion as to whether or not specific lots of soybeans were affected.

The informational services concerning improved methods of harvesting, storing, grading and marketing grain and reporting local and area grain prices were continued during the year.

MASSACHUSETTS

New basic data for vegetables--(RM:c-4550-1)

Under this project Massachusetts vegetable growers were again provided, prior to the planting season, with information on acreage intentions covering 46 vegetable crops. Comparative data on the planted and harvested acreages of these crops for 1953 and 1954 were included in the report "Massachusetts Vegetable Crops," which carried the intended acreage data. Summary reports covering acreage, yield per acre, production, season average farm price, and total farm value for each vegetable were also prepared and issued at the end of the season.

The new data being made available under this program not only are valuable to growers in planning their individual production and marketing programs but are extremely useful to the agencies and groups concerned with plans to improve the presently inadequate and inefficient physical facilities and services for produce in the Boston area.

MICHIGAN

Certification of nursery stock--(RM:c-2550-20)

Several years ago the State department of agriculture, in close cooperation with the Michigan Agricultural Experiment Station, undertook to develop a disease-free certification program for nursery stock. This service was greatly needed by the nursery and fruit industries. Virus infections in trees and plants take a heavy annual toll in reduced yields, low quality of fruit crops, and death losses of trees and plants. The presence of many of these diseases in nursery stock is difficult or impossible to detect by visual inspection. Therefore, progress in this work calls for the development of new techniques and methods to make possible the selection and propagation of disease-free stock.

Considerable progress has been made with cherries, using visual inspection for easily detected diseases and indexing for those whose symptoms are masked on the source trees. During the year some 170,000 buds of sour and nearly 15,000 buds of sweet cherry varieties were distributed to the 9 cooperating Michigan nurserymen. Assistance also was given 3 nurserymen in establishing their own source of virus-free budwood for sweet cherries. Some 22,500 rootstock seedlings (Mahaleb) produced from disease-free seed were used to propagate trees for project use and for distribution (6,000) to USDA and State experiment stations.

Virus diseases have been a constant threat to the Michigan peach industry since it was first established. One of these diseases--peach yellows--nearly destroyed the industry at the turn of the century. At the present time 4 virus diseases are considered of serious importance. Unless proper precautions are taken these may be introduced in nursery stock at the time of propagation. Two approaches are being followed in producing virus-free sources of propagating material. These are: (1) Repeated visual examination of parent trees, and (2) heat treatment of propagating wood in hot water. New procedures are being developed and tested in cooperation with the Michigan Agricultural Experiment Station. As a service to the 13 cooperating nurserymen, inspections were made of nearly 6,500 peach trees, as sources of propagating wood, and of about 50,000 trees near the nursery orchard of the cooperators to eliminate peach trees suspected of being infected.

Research in recent years has shown that all strawberry varieties are susceptible to virus infections which, in many varieties, cause reduced fruit and plant production. This is a problem of vital importance to Michigan nurserymen since they not only furnish plants to Michigan growers but are the most important source of plants for growers in nearby States. The selection of virus-free clones of strawberry varieties has been difficult, but it was possible under the project to distribute some 33,000 plants of the Robinson, Catskill, and Marshall varieties to the 6 nurserymen cooperating in the project. These nurserymen have agreed to comply with the rigid requirements relating to production practices and replenishment of foundation stock established under the certification program.

(Michigan)

A start has been made on a certification program for the red raspberry, the production of which has been declining in Michigan. The evidence indicates that virus diseases are partially responsible for this trend even though the State department of agriculture has maintained over the years a very active and thorough certification program based on visual inspection. A fresh start is needed utilizing selections of varieties proven free of viruses by the indexing technique. Several promising selections of the Latham variety have been developed and it is expected that these will be increased in another year or so to permit initial distribution of foundation stock to nurserymen.

Improving the grading, handling, and packing of fruits, vegetables, and eggs--(RM:c-2550-41)

At the request of the Michigan Celery Growers Association, specialists conducted a survey in the wholesale and retail trade. The survey revealed the need for decided improvements in grading and packing methods for Michigan celery to increase acceptance of the product. Recommendations were made to growers and packers on the basis of the survey as to the specific measures which they should undertake to raise quality and pack standards. Followup work was carried out in the packing plants to assist operators in putting the recommendations into effect. Representatives of the celery industry commended this program of quality and pack improvement for the beneficial effects it had upon the movement and prices of celery. It was stated that the specialists assigned to the program were in large degree responsible for maintaining the higher quality standards which the industry set up as a goal early in the season.

Similar market surveys were made of apples and potatoes. These surveys brought out the need for continuing efforts to improve the grade and pack of these commodities. Improved methods of grading and packing are needed particularly for potatoes if the Michigan product is to compete successfully with the brushed or washed potatoes from competing areas.

On the Benton Harbor market, over which some 4 million packages of Michigan-grown fruits and vegetables move annually, specialists explained the requirements of official grades to growers using that market; they conducted nearly 3,000 demonstrations to assist growers in regrading produce to meet grading and labeling requirements of State regulations. Improved methods of grading and handling produce also were demonstrated at 32 meetings held over the State with producers, shippers, wholesalers, institutional users, and student groups.

To promote the use of improved grading and packing methods for eggs, demonstrations and exhibits were presented at agricultural fairs to show the advantages of the new methods over those generally in use.

(Michigan)

Special market information for fruits and vegetables and assembly of basic data for dairy products--(RM:c-4550-15)

A shortage of nursery stock during World War II and favorable returns in most recent years have resulted in extensive plantings of cherry trees, both sweet and sour. The exact extent of this expansion, however, and its probable effect upon the future production potential were not known. Since such information is essential to the formulation of industry plans, the Michigan Cherry Commission requested the State department of agriculture to conduct a tree census by age of trees. The field work for the census, which was performed by the department's cherry fruit-fly inspectors, has been completed, and a preliminary report has been issued. This report indicates that by 1958 the number of bearing trees of sour and sweet types will expand by 20 percent and 10 percent, respectively. Further gains are expected between 1958 and 1961, and by the latter year bearing trees of both types may be up as much as 28 percent over the 1955 levels. A publication is being prepared for release next year in which the cherry tree data will be summarized by age groups and counties.

As the result of a difficult experience in connection with the marketing of the 1954 apple crop, growers and processors requested the Michigan Department to resume the August 1 varietal production estimates. Production of Northern Spys was a record in 1954, but this fact was not realized until the official varietal estimates were released in December of that year, by which time many processors had closed down for the season. The consequence of this situation was underutilization of this variety in processing, its primary outlet, and the dumping of excessive supplies on the fresh market during the storage season, with attendant low prices. Varietal estimates were made for the 1955 crop and included in the regular August release.

Apple storage reports covering apples in storage in Michigan are now being released by 3 different agencies, the USDA, Michigan Apple Storage and Growers Association, and the International Apple Association. These reports differ in coverage, report and release dates, and other particulars. Several storages receive questionnaires from all 3 agencies. The State department of agriculture is exploring the possibilities of combining these efforts and of developing a single reporting system meeting the requirements of all 3 agencies.

The department continued the series of special onion releases designed to assist Michigan onion growers in planning their marketing programs. These releases provide timely information on the progress and condition of the Texas onion crop. This information is essential to intelligent planning in the marketing of storage onions.

Basic data on Michigan dairying were summarized and brought together in one publication which was released during the year. This convenient reference source has been needed by the dairy industry in the State.

MINNESOTA

Improving quality and expanding market outlets for dairy products, eggs and apples--(RM:c-2550-47)

A survey was conducted by the State department of agriculture among about 2,000 manufacturing plants and other establishments in the Twin City area. As a result, some 150 potential locations for the machine vending of milk were discovered. This information was provided to milk distributors and has been utilized by them in placing the Twin Cities at the top of the list of cities in the density of milk vending machines. The placement of these machines in such key spots as the State Capitol, St. Paul Railway Station, and one filling station chain was a direct consequence of this program. To encourage the increased use of vending machines in rural areas, a release was prepared and distributed to all dairies in the State giving recommendations and suggestions for merchandising milk by this means.

Department specialists contacted a majority of the 300 dairies in the State to advise them regarding the operation of the School Milk Program in Minnesota and to arrange conferences between school officials and local dairies to encourage participation. This service has contributed to a phenomenal growth of the school milk program in the State under which about 30 million half pints of milk are being consumed annually.

Activities of the State mobile bacteriological laboratory during the past year were concentrated in Wright, Scott, and Carver counties. Under this continuing program, dairy plants were assisted in establishing uniform grading procedures and in locating and correcting conditions causing quality deterioration. This service has been extended to all plants in the State at least once and has been reflected in improved quality of Minnesota dairy products, enabling the industry to compete more effectively with other areas.

Assistance was given the Minnesota Poultry Improvement Committee in its efforts to improve the quality of eggs marketed. This assistance included the designing and supervision of an egg grading exhibit at the State Fair.

The Minnesota Apple News was again distributed each month during the harvest season to truckers and other buyers in Minnesota and nearby States. This publication provided information by areas of the State on the varieties, qualities, and quantities of apples available.

Certification of nursery stock--(RM:c-3550-28)

Minnesota is an important source of stone-fruit nursery stock for planting in the North Central States and Canadian provinces. This market for the Minnesota nurseryman is being restricted by quarantines and other regulations imposed by the various States and provinces against uncertified stock. This nursery stock of the Prunus species is susceptible to a number of virus diseases which seriously impair the fruit bearing and production life of the tree. The presence of many of these diseases is not discernible in some types

(Minnesota)

and varieties of this species by visual methods; therefore, the development of a virus-free certification program in such instances is dependent upon other means of detection.

To solve this problem, the Minnesota Department of Agriculture, in cooperation with the Minnesota Agricultural Experiment Station, initiated a program in 1949 to develop a certification service for Minnesota nurserymen. Under this program, technicians assist nurserymen (1) in establishing virus-free budwood sources, (2) by inspecting trees used as propagating sources to detect usual symptoms, and (3) by indexing or testing source trees for diseases having hidden or masked symptoms.

Progress was made during the year in increasing budwood sources free of the necrotic ring spot disease. Two new budwood mother blocks were added to the project, bringing the total of such blocks to 8 in the 6 cooperating nurseries. These blocks contain about 1,300 trees of 52 winter-hardy Prunus varieties free of necrotic ring spot. Three of the cooperating nurseries are now propagating all of their Prunus stock from these sources.

The work under this project has resulted in several important discoveries with respect to necrotic ring spot. One of these is that the disease does not spread rapidly in Minnesota and therefore can be controlled by the use of virus-free propagating material, and another is that seedlings of Prunus tomentosa provide a cheap and satisfactory index host for the disease.

The project has now developed to the point where it is believed an initial certification program can be instituted in cooperating nurseries. The tentative plans are to certify trees propagated under the program as being propagated from an approved budwood source, selected and determined to be free apparently from known injurious virus diseases by indexing on Prunus tomentosa and visual inspection of the mother tree. Although it will not be possible at this stage to certify freedom from virus diseases in general, it will be a start toward that eventual goal and will provide valuable assistance to nurserymen in marketing their product. Even though actual certification has not gone into effect under the project, there has been a marked improvement in the quality of Prunus stock propagated in the nurseries of the State. This quality improvement has come about because of the reduction or elimination of necrotic ring spot and the removal of stock suspected of having the X-disease virus.

The survey of commercial Prunus orchards in the State to determine the prevalence of the so-called X-disease disorder was continued during the year. Every orchard surveyed showed varying percentages of trees affected with this disorder, and some orchards had been virtually ruined. Further investigation will be needed to develop certification procedures for this condition.

New basic data for livestock, dairy products, poultry, and eggs--(RM:c-4550-26)

Several surveys were conducted during the year to provide basic information needed by turkey growers and processors in making marketing decisions. The first

(Minnesota)

of these--on intentions to keep turkey breeder hens--was made in November 1954. Results of this survey were published in December, in time for use by industry members in planning their hatchery egg marketing programs. Beginning in February 1955, special information on hatchings of Broadwhite poults was assembled and reported on weekly during the hatching season. These reports were requested by the industry to supplement data on the light-breed hatch. A new survey of turkey processors was initiated in August 1955 to obtain specific information on turkey slaughter by type as an aid in estimating the current supply of turkeys on farms.

The March and September reports on sow farrowing and hog numbers were continued. Special information on the seasonal characteristics of the calf crop was obtained and reports thereon made to farmers and others concerned with seasonal adjustments in the marketing of both milk and calves.

An illustrated bulletin entitled "Minnesota's Chicken and Egg Industry" was published during the year and has been widely used by the Extension Service in its education program with egg producers. This publication was based on a survey of egg marketing practices conducted among growers by the State department of agriculture.

Data on milk cow numbers and milk production, by counties, for the period 1939-54, were assembled and published in "Minnesota's Dairy and Cattle Industry, Dairy Supplement." About 1,500 copies of this booklet have been distributed.

MISSISSIPPI

Improving methods of handling milk--(RM:c-2550-21)

The State department of agriculture in cooperation with the Extension Service completed its fifth year of helping the dairy industry of the State to improve milk handling methods and to maintain the quality of milk. As a result of these activities, fully half of the approximately 800 million pounds of milk marketed annually by Mississippi producers has shown significant quality improvement. Under the program, detailed surveys are made among individual producers in areas when quality problems exist to determine the specific causes of poor quality. Through individual demonstrations and other methods, the producers are helped to improve handling methods to correct the condition.

During the past year, followup visits were made to 352 farmers having quality problems. These visits were made with the fieldmen or managers of the 3 whole milk and 6 manufacturing plants to which these farmers were delivering so as to provide for greater continuity and coordination of effort in the quality-maintenance program.

The program has stimulated two dairy plants to construct and equip laboratories to provide greater service to their producers in quality

control problems. Technicians of the department analyzed 244 samples of milk for producers having difficulty in maintaining quality.

Improving the handling of vegetables--(RM:c-2550-27)

Services to the vegetable industry were expanded during the year to assist in the marketing of a greatly increased volume of vegetables produced on acreages diverted from cotton. In cooperation with the Extension Service and the Farmers' Central Market at Jackson, a series of demonstrations and meetings was held with producers and shippers to encourage proper grading and packing. Specialists also were assigned to several of the seasonal markets established by the Farmers' Central Market to advise producers with regard to harvesting schedules and to demonstrate proper grading and packing methods. Prices received by the producers following the recommended methods ranged from 50 cents to $1.50 per package above prices received for the same commodity ungraded and poorly packed. Often the ungraded commodity could not be sold at any price. The importance of the service program is indicated by the fact that it was concerned with an estimated $8 million worth of Mississippi produce which moved through the Farmers' Central Market and its branches during the year.

Assistance in marketing the large 1955 crop of Mississippi watermelons was a major phase of this service program. Watermelon acreage was increased substantially in Mississippi and competing States on land taken out of cotton as a result of reduced acreage allotments. The increased production imposed a serious marketing problem on Mississippi producers.

Two types of assistance were provided by the department in marketing the large supply. The first of these involved an informational service, in cooperation with the Extension Service, to some 2,500 watermelon buyers advising them, prior to the marketing season, of the production areas in the State and the estimated acreage of and harvest period for each variety. This information was included in a pamphlet, with a map of the State showing the highway system. Under the other type of service, specialists with watermelon marketing experience were placed in the areas to assist growers and shippers in properly harvesting, grading, and loading the melons offered for sale. The program met with success, and despite the large supplies the crop was moved at profits to growers of about $70 to $100 per acre.

The services of specialists were requested during the year to determine what might be done to improve the quality of processing snap beans. Specialists made a survey of harvesting and handling methods which revealed that the factors responsible for the delivery of poor-quality raw stock to the canning plants were (1) producers were picking only once a week, and (2) beans were being held too long at receiving stations. Adoption of the recommended practices of more frequent picking and quicker delivery of beans to plants resulted in upgrading of the finished product and greater income to both producers and canners.

(Mississippi)

Providing new basic data and marketing information--(RM:c-4550-18)

Mississippi initiated a program to obtain and report each year basic marketing data on a county basis. To lay the groundwork for this program, an expanded mail survey covering about 21,000 producers was made in June 1955 to obtain additional data on the major crops and several livestock items. The results of this survey are being summarized.

Special data on the important vegetable crops were obtained on a county or local area basis and released to producers and buyers semimonthly during the 1955 crop season. These reports supplemented the regular commercial vegetable acreage and production estimates issued on a State basis and provided producers, buyers, and marketing agencies with current information on acreage, prospective production, progress of growing crops, and harvesting dates.

The first comprehensive statistical summary covering production, utilization, and marketing of Mississippi agricultural products--the Base Book of Mississippi Agriculture--was published during the year. It is planned to issue annual supplements to this publication to keep the material up to date.

MONTANA

Improving quality of eggs and dairy products--(RM:c-2550-25)

Specialists made over 2,000 contacts with retailers during the year to demonstrate egg grades and to encourage and assist retailers to improve display methods. In connection with grading demonstrations, specialists supplied retailers with copies of the reports on the results of the grading. If eggs were below the grade as marked by the supplier, specialists contacted the supplier and helped him correct the problem. Frequently the producers of the eggs were responsible for the quality problem and in these instances they were shown the proper grading and handling methods necessary for maintaining quality. This continuing work is showing positive results in that more and more retailers are using refrigerated displays and insisting on better quality from their suppliers. These improvements have stimulated consumer demand for high-quality eggs.

Continued assistance was given to dairy plants in improving handling methods and in maintaining the quality of dairy products. Specialists made monthly visits to each plant in the State and secured samples of butter, cottage cheese, ice cream, and ice cream mix for analysis and scoring by Montana State College technicians. Some 2,910 quality tests were run on the samples obtained and the results reported to the plants. Dairy plant managers are showing an increasing interest in this type of service.

New basic data for grains--(RM:c-4550-34)

Increasing production of barley and oats on land diverted from wheat, as a result of wheat acreage restrictions, and shifts in market requirements and

utilization of barley have created the need for special data on these crops. Varieties of barley differ greatly in their acceptability for specific uses or market outlets, and there have been pronounced shifts in demand among various outlets. Varietal acreage, production, and stock data are needed by producers, marketing agencies, and the Crop Improvement Association in planning a balanced grain production and marketing program for the State.

Estimates of the 1954 acreage, yield per acre, and production of barley and oats by varieties and the disposition of these crops were derived from a special survey made in April 1955. These data were presented on a county or area basis in the State department of agriculture's publication "Montana Grains, Wheat Protein, Barley and Oats Varieties, 1954 Crop." As the title indicates, this publication included data on the protein content of the 1954 wheat crop and continued the series started with the 1951 crop. The publication also contained monthly price averages for the 1954 wheat crop, giving for the two major classifications grown in the State base prices for No. 1 heavy and the protein premiums.

NEBRASKA

Experimental market news for poultry and eggs--(RM:c-4550-3)

An experimental market news service for poultry and eggs was initiated during the preceding year, at the request of producers and dealers in the State, to provide the industry with local and area price information. This service was continued during the past year, but subsequent to July 1, 1955, it was conducted by the Nebraska College of Agriculture. Reports were issued daily by press and radio covering prices being paid by local dealers and processors for these products and including information on the market situation in key out-of-State markets and other pertinent data.

NEW JERSEY

New basic data on crops and livestock--(RM:c-4550-42)

The major activity under this project consisted of the assembly and publication in one source--"New Jersey Agricultural Statistics, 1944-1954"--of New Jersey historical crop and livestock data and of county estimates for 1953 and 1954. A widespread and insistent demand has existed in the State for a compilation of this scope and detail.

In addition to this publication, a number of special reports were issued during the year on such subjects as (1) potato acreage, production, and stocks, (2) March planting intentions, (3) early season freeze damage, (4) livestock and poultry inventory numbers, (5) monthly milk cow numbers and milk production, (6) fruit production prospects, and (7) spring and fall pig crops. In the survey to obtain the pig crop data, special marketing information was secured

(New Jersey)

on such items as interstate and intrastate movements of hogs, death losses, slaughter weights, sources of purchases, and methods of sale. A survey of livestock auction markets also was made to obtain basic data on monthly prices of livestock needed to improve price estimates.

NEW YORK

Improving marketing methods and providing special market information for fruits and vegetables, livestock, hay, maple syrup, and Christmas trees--(RM:c-2550-26 and 54)

Apple growers and shippers in New York have been able to secure premium prices for an increasing volume of apples packed in so-called "count" packs. These packs have achieved favorable trade acceptance because of the size uniformity of the apples and the protection from bruising afforded by the carton-cell or molded-tray type of package generally used. These packages are designed for specific sizes of apples, such as, for example, a 3-inch minimum size, and to contain a certain number of apples of the specified size. Regulations relating to count packs do not, however, specify the minimum size of apples to be packed in a given count pack but only limit the range in sizes. Therefore, carton-cell or molded-tray packages designed for a 3-inch minimum apple can legally be packed with $2\frac{1}{2}$-inch minimum apples. Instances of packing undersized apples in these packs apparently are becoming more frequent. This situation has given the industry concern about the need for revising the State's apple packing regulations to eliminate the practice. Specialists initiated a study of the problem during the preceding year to develop a set of regulations to govern the sizing of count packs. This study was continued during the past year and a proposal was drafted and presented to the industry for its consideration.

Preliminary work was started during the year on a program to develop and introduce an improved consumer package for apples--one that is economical, that will protect the fruit during shipment, and that has sales appeal. Tests were made using various sizes and shapes of packages of different materials. One of these packages was selected for more extensive testing next year at shipping point and at wholesale and retail levels. This package is made of chipboard and is in one piece; it folds, has 6 cells, and is designed to hold 1 dozen apples of 3" minimum size. It could be designed, however, to pack other sizes. These individual packages would be packed 8 to a master carton of $15\frac{1}{2}$ x 12 5/8 x 12 3/4" dimensions, made of 200-pound test corrugated fiberboard, with layer and cross dividers of the same material. Similar work was continued, primarily in the Rochester area, in the search for improved packages for fruits and vegetables to standardize packs and thereby to increase demand. The adoption of an 8-quart fiber strawberry container by 4 large growers in the Rochester area enabled them to obtain a premium of nearly 10 cents per quart and to open up markets in other areas, thereby reducing the local surplus. One chainstore buyer was instructed to buy only berries packed in this container.

(New York)

In the important Hudson and Champlain Valley areas most apples are sold f.o.b. orchard or local storage. To provide growers and shippers with information needed in planning their marketing programs, a special weekly f.o.b. market news report was instituted in 1952. This report was continued during the past year and was distributed during the 32-week season to about 370 growers, shippers, and interested agencies. The reports provide f.o.b. prices by variety, grade, size, pack, and condition, current demand information, data on the movement to the retail trade, and into and out of storage, and processing prices. Growers and shippers have given excellent cooperation in developing this service, and the reports last year covered about three-fourths of the apples sold from these valleys. The availability of this information has helped to establish more orderly marketing of the apple crop in the State.

Similar f.o.b. reports were continued relating to supplies and prices of hay, Christmas trees, and maple syrup. These have been extremely useful to producers and buyers in making marketing decisions.

Livestock marketing data obtained from the 62 livestock auctions in the State, in compliance with State law, were summarized and issued quarterly to auction owners, county agents, and others.

New basic data-fruits and vegetables, dairy products, and field crops--
(RM:c-4550-16)

Basic historical data pertaining to acreage, production, price, and value of vegetable crops and field crops grown in New York were assembled and published during the year. A survey of the 36 wineries and grape processing plants in the State was completed, and a report was issued showing, by varieties, for the 1954 season, quantities purchased within and outside the State and primary utilization. Improvement in the accuracy of preharvest estimates of grape production is of concern to the industry. Since many grape growers are believed to think in terms of yield per acre as their crops approach maturity, this may provide a more satisfactory sampling factor than the condition factor presently used. In order to make comparisons of the two methods, tests were conducted involving a "probable yield per acre" question in connection with the September 1 and October 1 condition surveys. Before an evaluation of this alternative method is attempted several more years of testing will be required.

An intensive survey was conducted in the muckland areas of Orange, Madison, Genessee, and Orleans counties to improve the 1955 truck crop acreage estimates and to provide a basis for more accurate production forecasts. Preharvest forecasts of onion production were released in early September for each of the 6 major onion-producing areas of the State.

The 12 major upstate milk-producing areas not covered by marketing orders were surveyed again this year to supplement and round out the information on the milk industry in New York and to detect trends in the consumption and utilization of surplus milk. The survey data included (1) number of

(New York)

licensed handlers in the area, (2) number of farmers delivering, (3) supply of milk from farmers' and dealers' own herds, (4) fluid sales of milk and milk equivalent of cream, (5) average butterfat test of milk received, and (6) price paid producers for milk. Other data of value to the dairy industry assembled during the year included the quantities of the different ingredients used in the manufacture of frozen desserts and the types and sizes of containers being used by ice cream manufacturers in the State.

NORTH CAROLINA

Improving efficiency of cotton gins and cornmeal mills--(RM: c-3550-1)

Technical assistance was again extended to North Carolina gin operators in improving gin facilities and ginning operations so as to obtain maximum preservation of fiber quality. Prior to the initiation of this program in 1948, about 15 percent of the cotton ginned in the State was gin-damaged, or rough "prep," resulting in an annual loss of approximately 1 million dollars in market value. With the assistance given under this program, this problem has been largely resolved. However, continued technical assistance will be required to maintain this desirable situation. This accomplishment has permitted greater concentration on other problem areas in cotton ginning and marketing requiring for solution more effective working relationships among all factors in the industry--from grower to cotton mill. Specialists of the North Carolina Department of Agriculture provided technical assistance in the replacement of ginning facilities valued at 1 million dollars that had been damaged by hurricane Hazel and in the planning and designing of new facilities valued at $500,000. The North Carolina Department also provided technical assistance to gins in Virginia in improving ginning operations, under a joint program with the Virginia Department of Agriculture and the Virginia Agricultural Extension Service. In connection with these activities specialists made 465 visits to gins, participated in 66 ginner meetings, 33 conferences with Extension Service personnel, 32 cotton promotion meetings, 24 farm organization meetings, and 5 conferences with cotton mill technicians.

The objective of the technical assistance program for corn processing mills is to aid them in maintaining sanitation measures necessary to comply with pure food laws, in improving the quality of corn food products, and in securing wholesome raw products. Visits were made to 377 mills to provide engineering assistance relating to problems of mill layout, equipment operation, and sanitation. Specialists also attended 15 conferences with State and commercial cereal laboratories on corn products marketing problems and assisted the North Carolina Grain Production and Marketing Committee in conducting 11 grain-grading schools. The corn millers of the State organized their own trade association during the year with the objectives of developing advanced business practices and promoting the marketing of corn and other grains on a grade basis.

(North Carolina)

Fiber testing of cotton--(RM:c-3550-29)

The service program relating to cotton in North Carolina includes the testing of the fiber for various properties such as length, strength, fineness, uniformity, and maturity to determine the end uses for which the cotton is best suited. Samples of cotton are collected weekly from representative gins in the various areas of the State, and test results issued bimonthly to cotton mills and merchants. The use of these test results by buyers in selecting cotton has expanded greatly during the past 2 years. This past year the North Carolina Department of Agriculture entered into a cooperative arrangement with the Agricultural Marketing Service, which has set up an automatic sampler in one North Carolina gin for studying this method of sampling cotton bales in a Southeastern market, to add the micronaire ratings to the Class Cards of the automatically sampled cotton. Local buyers and cotton mills acquiring automatically sampled cotton will be surveyed to determine their reaction to both the automatic sampler and the marketing of cotton on government classification and micronaire tests.

Work under this project has been reflected in an improved market for North Carolina cotton and the closer cooperation of cotton spinning interests.

Improving marketing practices and expanding outlets for fruits and vegetables, poultry and eggs, livestock, dairy products, and tobacco--(RM:c-3550-31)

Peach and apple growers, whose 1955 crops were destroyed by a spring freeze, were assisted in grading, packing, and locating outlets for the alternative crops which they grew to supplement their incomes. The substitute crops for which such services were provided included sweet corn, 500 acres; tomatoes, 400 acres; watermelons, 200 acres; and cantaloupes, 300 acres. These alternative crops returned nearly $400,000 of income to these growers.

Specialists assisted a vegetable canner in promoting the adoption of a new variety of snap beans for processing. This proved to be a popular and profitable venture for the producers involved.

A group of new lettuce growers were given assistance in properly grading and preparing their lettuce for market. It is estimated that these growers, by following the recommended practices, realized an additional $1.10 per crate over what they otherwise would have received, or a total gain of approximately $7,000.

Two major and long-range accomplishments affecting the fruit and vegetable industry in which specialists participated were the formation of the North Carolina Association of Produce Market Managers and the completion of the new Raleigh Farmers Market. The principal objective of the Association is to promote the standardization of the packs of North Carolina fruits and vegetables. The Raleigh Farmers Market is one of the most efficiently designed facilities in the Nation and is expected to become an important outlet for North Carolina producers.

(North Carolina)

Movement of North Carolina fruits and vegetables was again facilitated through the informational services the State department of agriculture provided buyers of these commodities. On March 15, 1955, the department issued its report "North Carolina Fruits and Vegetables, Schedule of Movements, 1955" to about 1,000 buyers in 17 States, giving for each auction market and shipping point the anticipated 1955 marketing period and the 1954 volume of each commodity. Following this initial distribution, some 300 additional copies were sent out to buyers on specific request. In addition, specialists handled about 700 specific requests from truckers and other buyers for marketing information on North Carolina fruits and vegetables.

The lack of technical know-how in preparing tobacco for market in accordance with official standards has been a major handicap to North Carolina growers in obtaining full value for their crops. This problem has been intensified by the ever-changing requirements and demands of buyers, resulting from scientific research and the increasing preference for filter-tip cigarettes, the introduction of new tobacco varieties, and abnormal growing conditions. To help resolve the problem, specialists conducted demonstrations of proper methods of sorting and preparing tobacco at some 94 meetings attended by about 2,000 farmers. A simple system of farm sorting, using actual samples of farmers' ungraded tobacco, was demonstrated to help growers understand how different lots of tobacco should be sorted to conform to official standards. Growers adopting the recommended practices received increased returns of from $2 to $8 per hundred pounds, amounting in total to many thousands of dollars.

The 1955 issue of the "North Carolina Tobacco Report" was prepared and distributed to about 6,000 growers, warehousemen, dealers, and other interested persons and agencies. This report covered the 1955 outlook and a detailed analysis of 1954 crop flue-cured and burley sales by markets and 1954 acreage, yield, production, and price by counties. Specialists participated in a study of the factors pertaining to opening dates of flue-cured tobacco markets, the results of which were published by the North Carolina Agricultural Experiment Station in May 1955 (see list of publications).

Passage of the 1955 North Carolina Egg Marketing Act, which specialists assisted in preparing, created a demand for technical training in proper grading and handling methods. During the year such training was given to 165 egg handlers and their employees in different areas of the State. This service contributed to the establishment of 5 facilities for egg grading, and thus provided additional outlets for producers wishing to sell on a graded basis. Quality inspections were made of about 1,200 dozen eggs during some 160 visits to retailers and distributors. When quality problems were discovered, specialists assisted the responsible agency to adopt corrective measures.

A broiler promotion program was staged during the week of November 29-December 4, 1954, in cooperation with the poultry industry and North Carolina State College. Contacts were made with retailers and restaurant operators to

solicit their cooperation in featuring broilers during that week. A complementary publicity drive, directed at consumers through the free services of press, radio and television was coordinated with this phase of the program. This program assisted materially in moving broilers into consumption and in improving prices.

In recent years North Carolina has experienced a sharp rise in livestock production and local slaughter. This rise has greatly expanded the need for marketing services to improve marketing methods and facilities. Activity was concentrated during the year on providing assistance to livestock producers in organizing and conducting special sales and pools designed not only to secure better prices but also to serve as laboratories for demonstrating proper grading and handling methods. The following events were staged in this connection: 6 special slaughter and feeder cattle sales at which 1,500 animals were sold according to grade and class, resulting in returns of 2 cents to 4 cents per pound over what would have been received through regular local markets; 11 sales involving the sale of 5,000 uniformly sized and graded feeder calves which brought a premium of 2 cents per pound; 22 purebred cattle and 12 purebred hog sales to improve the quality of foundation stock in the State; 3 hog sales at which 800 hogs were sold, the hogs were slaughtered, and the carcasses were used in demonstrating desirable meat types; and 28 lamb pools through which 15,000 lambs were sold at premiums of from 2 cents to 5 cents per pound. Other assistance to sheep producers was given through the organization of 5 wool marketing pools totalling 108,000 pounds of wool and aid in locating about 3,000 high-quality replacement ewes.

Specialists are assisting producers and distributors in resolving problems associated with the increasing production of Grade A milk and seasonal deficits and surpluses. During the 1954-55 marketing season, specialists assisted in moving surplus milk from western North Carolina into the deficit eastern area of the State, and thereby increased producer returns by approximately $2.50 per hundred on the milk so moved. One bulk plant in the western area was assisted in obtaining a base with plants in eastern North Carolina which will permit this plant to participate in the Class 1 sales of these plants on a year-round basis. Other activities included assistance to plant managers in developing uniform milk classifications and in promoting a better understanding between producers and distributors of how to solve mutual problems.

Improving methods and facilities for handling grain--(RM:c-3550-32)

Technical assistance to grain producers and handlers in North Carolina in connection with problems of storing and conditioning grain has become an urgent need in recent years as a result of greatly expanded production. This program was started in 1948, and although considerable progress has been made, there is still much that remains to be done in this field. It is estimated that inadequate storage facilities alone result in grain losses approximating 15 percent of production, or roughly $15 million annually. During the past year, specialists assisted in the planning and construction of storage space

for about 700,000 bushels of grain, gave technical advice to 32 grain handlers in the operation of 37 grain dryers, instructed 48 handlers in the use of moisture meters and checked such machines for accuracy, and helped 63 other handlers with various storage, marketing, and grading problems. In cooperation with the Extension Service, specialists also conducted a 5-day grain grading course at which 25 handlers were represented. The expansion and improvement of grain drying and storage facilities since the program started has brought about more competitive markets, resulting in an estimated price increase to the producer of 5 cents to 20 cents per bushel, or a total annual gain of about $1,200,000. The conversion of elevators to accommodate bulk handling methods has been reflected in an additional income to producers of about 5 cents per bushel on corn and 10 cents per bushel on soybeans.

New basic data-fruits and vegetables--(RM:c-4550-8)

It is essential to the orderly marketing of fruits and vegetables that detailed information be available on the prospective volume, varietal makeup, and timing of marketings. The improvement of marketing information in these respects rests upon a basic knowledge of the geographical pattern and the area-by-area characteristics of the particular industry within the State. As an initial phase of the program to improve marketing information for North Carolina fruits and vegetables, the department conducted a comprehensive survey of the commercial peach and apple industries to obtain basic information on locations of orchards and tree numbers by ages and varieties. The data from this survey have beenassembled and analyzed and are scheduled for publication early next year. Plans also were developed during the year for a statewide survey of the sweetpotato industry so as to define more clearly the location and extent of commercial production. Under this project information relating to sweetpotato stocks, both on and off farms, also will be collected monthly during the main marketing season.

NORTH DAKOTA

Improving quality of cream and butter--(RM:c-2550-50)

The task of improving the quality of North Dakota milk and cream is made difficult by the relatively small size and sideline nature of the dairy enterprise on most farms in the State. In spite of this handicap, considerable progress is being made in encouraging producers to adopt improved handling methods and install better equipment. Each year, hundreds of farmers are installing cooling facilities for maintaining the quality of their milk or cream until delivery. Deliveries of undergrade cream to buying stations and processing plants have been reduced substantially since the project started. Improvements designed to maintain product quality also have taken place at these stations and plants. Last year, for example, over 50 cream buying stations installed walk-in coolers to hold cream until delivery to creameries.

(North Dakota)

Demonstrating methods of preventing deterioration and contamination of grain in storage--(RM:c-3550-36)

This project was initiated late in the year, but considerable progress was made in launching this important work. The Extension Service, North Dakota Agricultural College, County Crop Improvement Associations, and the North Dakota Committee to Prevent Contamination of Food and Grain are cooperating with the State department of agriculture and USDA in this project. Contaminated grain can be sold only for feed use at a substantial discount from the price for clean grain. Control programs were set up and completed in 4 counties and planned for 7 counties during the year. These county programs, which are organized in cooperation with the county agent, health department, or County Crop Improvement Association, involve farm demonstrations to train farmers in rodent control procedures and the baiting of all dump grounds, grain elevators, and areas within city or town limits. Specialists held 8 grain sanitation meetings which were attended by nearly 1,000 persons, conducted 38 demonstrations before nearly 800 farmers, and made nearly 1,700 contacts with farmers, county agents, and elevator operators in promoting this work. Information regarding these activities was disseminated by specialists through appearances on 4 television and 5 radio programs. The North Dakota Department of Agriculture also participated in the North Dakota Clean Grain Week, July 11-16, 1955, an activity sponsored by the "clean grain committee," and assisted the State Agricultural Stabilization and Conservation Committee in its sanitation program by conducting rodent control demonstrations for 239 of its bin inspectors at 4 district meetings.

OHIO

Experimental market news for fruits and vegetables and livestock--(RM:c-4550-43)

Growers and marketing agencies were provided with timely marketing information, including f.o.b. country point prices, on such southern Ohio fruits and vegetables as apples, peaches, broccoli, cabbage, cauliflower, and tomatoes through an experimental market news service opened at Marietta, Ohio, about May 15, 1955. The availability of this information improved growers' bargaining ability and helped to prevent demoralized price situations. It also pointed up the need for improvement in the grading and packaging of tomatoes grown in the area, and as a result, a cooperative marketing organization is being organized to provide proper facilities for the packing of a standardized and quality tomato pack. A similar experimental market news service for northern Ohio fruit and vegetable growers was opened at Lorain, Ohio, about July 15, 1955. Some difficulty was experienced in assembling the market information for this area, but in spite of this handicap, growers and marketing agencies commented favorably on the value of the service.

Preliminary groundwork was laid during the year for the expansion of the present Columbus wholesale fruit and vegetable report to include truck receipts of these commodities on that market. Rail receipts of fruits and vegetables

on the Columbus market represent only a small and varying fraction of total receipts.

At the present time, livestock market news coverage of Ohio markets is limited to Columbus, Cleveland, and Cincinnati. The bulk of Ohio livestock, particularly hogs, is sold at local markets in the State. Farmers and marketing agencies have requested that information from these local markets be assembled and included in reports to provide more comprehensive livestock market reporting. Plans were made to assemble and include in the Columbus livestock market report information on receipts and prices paid at these local markets.

OKLAHOMA

Improving quality and expanding outlets for poultry and eggs, fruits and vegetables, and other products--(RM: c-2550-12)

Continued assistance was provided turkey producers and processors to help improve the quality of dressed turkeys. In cooperation with the Extension Service, the problem of rough handling in transporting live birds was dealt with at several meetings attended by representatives from all segments of the industry. Processors also were assisted in improving processing facilities and methods to reduce injury and bruising and to produce a more attractive product. Efforts to induce several processors to purchase turkeys and other poultry on a live-graded basis were successful--a fundamental step in the quality improvement program.

Retailers over the State were helped to do a better poultry merchandising job through actual demonstrations of the best methods of retail display. Exhibits to acquaint the general public with poultry grades were set up at the State fair and other events.

To implement the quality program further, the department developed and established standards and specifications for inspection of ready-to-cook poultry for wholesomeness. Several processors have requested that this type of inspection be established in their plants.

The monthly egg inspection report issued by the Oklahoma State Board of Agriculture is being used increasingly by egg handlers and retailers as a guide in egg transactions and has greatly stimulated the marketing of eggs under the State's voluntary egg grading program. This report shows for each egg packer in the State the results of inspections made of his eggs during the particular month. Such details as the grade and size as labeled by the packer, the gradeout as determined by the inspector, and whether or not the eggs meet the labeled grade, are given in this report. Other activities designed to improve egg marketing included the holding of 60 egg-grading demonstration schools which were attended by about 5,000 producers, distributors, and consumers, and 2 poultry and egg cooking schools in cooperation with home demonstration agents of the Extension Service.

(Oklahoma)

With the increased development of irrigation projects over the State and reduced acreage allotments for major crops, there has been an increased interest in fruits and vegetables. During the past season specialists assisted 3 producer groups to organize associations to market such items as sweetpotatoes and cantaloupes. Assistance was given these new associations, and other associations and marketing agencies, in problems relating to maturity, in the adoption of proper grading and packing methods, and in securing market outlets. The latter activity was carried out through a publicity program informing buyers and consumers of products in plentiful supply, conducted through the free services of 2 television stations, 23 radio stations, and 35 newspapers in the State.

Technical assistance was given growers of vegetables for processing in improving the quality of products delivered to processors. In cooperation with home demonstration agents, specialists held 52 demonstrations of processed fruit and vegetable grades. Honey displays were set up in grocery stores in 15 towns and cities to demonstrate types of honey and encourage greater consumption. The experimental market news and grading programs for pecans were continued, to assist producers in improving returns from this crop. Pecan producers also were furnished lists of pecan buyers in the State, to assist them in obtaining outlets.

Under the Oklahoma State Board's marketing information program, producers and marketing agencies were given current information on the supply and price situation for poultry, eggs, butterfat, peanuts, pecans, wheat, oats, milo, barley, and fresh fruits and vegetables. Price quotations were obtained daily from representative buyers over the State. This information was summarized and disseminated through the press and radio. Some 35 daily newspapers in the State published the quotations. A summary of important developments and market trends for the various commodities also was prepared daily and included in the Board's daily market report. This summary was published daily by the State's largest evening newspaper.

OREGON

New basic data-filberts--(RM:c-4550-41)

Accurate preharvest estimates of the filbert crop are extremely important to the filbert industry in pricing and merchandising the crop and to the Filbert Control Board in determining the need for and the extent of surplus regulation under the Federal marketing agreement and order program. To provide a basis for more accurate crop estimates, a tree-number survey was conducted during the year. This survey will provide information on the ages, varieties, and locations of the filbert trees. The results of this survey have been tabulated but have not been published. Preliminary work also was started toward development of objective methods of sampling so as to establish an independent indication of filbert production as of August 1. Limb counts were made in a sample of 300 orchards during the year. This procedure will be

(Oregon)

followed for several years to test several methods of objective sampling for accuracy.

PENNSYLVANIA

Improving the quality of potatoes--(RM:c-2550-59)

During the 1954-55 marketing season, the State department of agriculture, in cooperation with the Extension Service of Pennsylvania State University, carried out an intensified program to assist potato growers and packers in improving the quality of their packs. In conducting this work, marketing specialists visited the storages and packinghouses and demonstrated to operators the use of Federal grades. They made on-the-spot recommendations regarding improvements in facilities and methods which not only would improve and standardize the packed potatoes but also would improve efficiency and reduce costs. These specialists made more than 300 such visits during the season, many of which were return visits to observe results and to give further assistance to the operators in carrying out the recommendations.

Along with this assistance program, the specialists conducted a quality survey with respect to both field-run and packed potatoes. This survey disclosed a wide variation in quality of both classifications of potatoes and the fact that many of the packaged lots failed to meet U. S. No. 1 grade requirements. It was revealed that much of the damage to potatoes, causing them to be out of grade, could be reduced by more careful handling methods.

Information from this survey was presented to growers and packers at a series of meetings in the spring of 1955. This activity had an important part in the decision of the potato industry in the Erie section of the State to adopt a 100 percent Federal-State inspection program for the 1955 crop. Experience in marketing the 1955 crop from that section has demonstrated the value of quality improvement. The graded and inspected potatoes from the Erie section brought premium prices as compared with ungraded and uninspected potatoes from other sections of the State competing under the same brand and in the same markets.

PUERTO RICO

Improving outlets and market quality of fruits and vegetables--(RM:c-2550-8)

Puerto Rico's shippers of fruits and vegetables need to improve and standardize their packs in order to take advantage of the demand potential in the United States for certain products. A survey conducted by the department of agriculture and commerce indicates that several of the fruits and vegetables shipped to the U. S. are not properly graded and packed for that market and, because of rough handling and inadequate protective service, do not reach their destination in satisfactory condition. Improvements are

possible, as exemplified by pineapples and mangoes, which find a ready market in the U. S. because of the well established standards of grading, packing, and handling followed. Work is underway in preparing grade standards for several commodities, including taniers (yautias), a starchy vegetable important in the Puerto Rican diet. Considerable quantities of this vegetable are being shipped to the mainland for consumption by the Puerto Rican population of such areas as New York City.

A program also was initiated during the year to assist wholesalers and retailers of fruits and vegetables to improve handling and merchandising methods. Several retailers were helped in introducing prepackaged items into their produce departments and given advice concerning the operation of such departments.

Improving the handling of food products--(RM:c-3550-4)

As a basis for providing assistance in improving and expanding the inadequate facilities for handling food products in Puerto Rico, specialists undertook a comprehensive survey of existing facilities at the various levels of distribution. This survey will be completed and a report issued next year.

SOUTH CAROLINA

Improving handling methods and facilities for grain and other farm products--(RM:c-3550-21)

Grain handling practices and facilities in the State are for the most part inadequate and inefficient. To provide a basis for initiating a service program in this field, two surveys were conducted to determine the adequacy of present practices and facilities and the areas of the State in which the greatest need for improvement existed. One of these surveys has been completed and the results published in "Production, Harvesting, and Marketing of Grains on Individual Farms in South Carolina," Cir. No. 401, Clemson Agricultural College, February 1955. This "on-farm" survey related to such items as: (1) Farmers' intentions to decrease or increase grain acreage over the next few years; (2) harvesting practices followed; (3) methods of storing and caring for grain on the farm; (4) extent of moisture and insect damage to farm-stored grain; (5) quantities of grain sold, seasonal sales distribution, and whether or not sold on basis of grades; and (6) farmers' opinions regarding needed improvements in grain marketing. To supplement the "on-farm" information, a survey also was made of the mill and elevator facilities in the State. This information is being assembled for publication. On the basis of this survey information, specialists have assisted individuals and groups in improving handling methods and facilities, in appraising the need for new facilities, and, where needed, have helped in planning efficient layouts and installations.

Specialists were instrumental in organizing the State Grain Committee, made up of representatives from the Extension Service, Clemson College, and

(South Carolina)

the State Agricultural Stabilization and Conservation Committee, to coordinate a grain marketing program in the State. Under the auspices of this committee, several district grain meetings were held to explain the new State grain sanitation law and discuss proper grain storage and handling practices. Very little grain is sold in South Carolina on the basis of official grades, and this is one of the major reasons for the existing inefficient system. To stimulate greater use of official grades, specialists prepared a grain grading chart and distributed it to all mill and elevator operators, county agents, and vocational agriculture teachers.

Another major accomplishment under this project was the establishment of a State grain inspection and grading service, which went into operation September 1, 1955.

In addition to the grain marketing activities, specialists also assisted in planning market facilities for fruits and vegetables in three areas of the State.

New marketing information and demonstrations of grades for livestock--(RM: c-4550-4)

The increasing production of livestock in South Carolina emphasizes the need for better information on livestock supplies in the State and a program to encourage the sale of livestock on the basis of recognized grades. In cooperation with the South Carolina Crop Reporting Service, a livestock survey was conducted to serve as a basis for county estimates of livestock, by classes and types. This information was used in preparing a historical series of county estimates from 1945 through 1954, which will be published in early 1956. Trends in livestock numbers by counties, which will be revealed by these continuing estimates, will serve as guides to producers and marketing agencies in marketing operations and in locating slaughtering facilities.

To promote the use of official grades in the marketing of beef cattle, a publication entitled "Market Grades of Slaughter Cattle" was prepared and distributed to producers and livestock dealers. This publication describes the various grades of slaughter cattle and contains a set of photographs illustrating for three different beef breeds the conformation and degree of finish characteristics of animals about midway in each grade classification.

SOUTH DAKOTA

Experimental market news and new basic data--(RM: c-4550-25)

During the past year, basic data were obtained, analyzed, and disseminated relating to quarterly sow farrowings, and farm, commercial, and Government storage capacity for small grains. Information was assembled for early publication of a report on corn bin storage capacity by counties and a statistical compilation relating to local market prices of farm products and farm supplies.

TENNESSEE

Improving marketing methods and expanding outlets for poultry and eggs—(RM: c-2550-29)

Demonstrations of proper candling, grading, packing, and merchandising methods for eggs were given to about 350 producers and egg dealers at a series of egg marketing meetings held over the State. These demonstrations were followed up by technical assistance to producers and dealers with special problems. Poultry processors were helped in improving plant facilities and in solving problems of plant sanitation.

Improving methods of marketing livestock—(RM: c-2550-30)

Promotion of livestock and wool marketing on the basis of official grades was carried out by means of demonstrational sales and pools which specialists helped to organize and operate. About 21,000 lambs were graded and sold through the 32 lamb pools conducted over the State, and this activity resulted in a net gain to participating producers of approximately $20,000. At the 7 demonstrational feeder calf sales, nearly 3,000 calves were graded and sold for a net gain to participants of about $17,000. Wool producers delivered nearly 668,000 pounds of wool, or nearly half of the State's production, to the various wool pools set up over the State. This wool was graded and brought the producers an estimated $17,000 more than it would have returned if it had been sold through other channels on an ungraded basis. By stimulating local competition these activities also improved returns to nonparticipants.

Special market information—(RM: c-4550-20)

Throughout the year, daily releases were issued to poultry and egg producers and dealers providing them with information on market conditions and prices for eggs and broilers. Interest in the marketing of graded eggs has been greatly stimulated by the release of egg price quotations on both a graded and ungraded basis. Requests for this report have nearly doubled during the year. About 300 reports are now being sent out daily, and new requests for the report are being received at the rate of about 30 per month.

TEXAS

Experimental market news—(RM: c-4550-36)

Under this experimental program, livestock prices and supply information were assembled from 16 livestock auctions in the Texas Panhandle area and disseminated daily by press, radio, and mailed bulletins. This program was completed during the year. The service is being continued, however, with regular funds.

(Texas)

Expanding outlets and improving grading, handling, and quality of agricultural commodities--(RM:c-2550-65)

This project was initiated August 25, 1955, and because of this late start, no report of activities was made.

VIRGINIA

Improving the marketing of broilers--(RM:c-2550-4)

The operation of the Winchester Broiler auction was studied to determine the possibilities of successfully establishing auctions of this type in other areas of the State. Indications are that the auction method of selling results in more competitive bidding, encourages marketing on a quality basis, and reduces selling costs. These findings were contained in the report, based on this study entitled "Marketing Poultry the Auction Way at Winchester, Virginia," issued in April 1955. The information from this report was helpful in establishing a successful broiler auction at Dillwyn, Va.

The Virginia broiler industry has encountered increased competition in northern markets from broiler areas in Georgia and other southern States. Processors from these areas have been able to undersell Virginia processors in many of these markets. To assist Virginia processors in improving operations to meet this competition, specialists made a survey of processing operations in Georgia and other competing areas. Several factors were found to contribute to the efficiency and low-cost operations of plants in those areas, namely: (1) A majority of processors in those areas paid for broilers on the basis of plant weight; (2) most of the processors did not feed or hold broilers at the plant; (3) they were able to obtain a satisfactory dressing job with completely automatic roughers and a slack scald of 126°-128° F. at higher processing line speeds than are used by the Virginia processors; and (4) they receive extra income from byproducts. A report of these findings has been prepared and is being presented at meetings with industry leaders.

Improving methods and facilities for handling and storing grain and hay--(RM:c-2550-5)

In the Shenandoah Valley, producers, grain handlers, and elevator operators were able to save about $75,000, or 25 cents per bushel on all grain handled, as the result of the adoption of improved handling practices recommended by the State department of agriculture. Services provided by the department included: (1) Demonstrations of proper fumigation, (2) assistance in the installation and proper operation of grain dryers, bulk handling facilities, and conveying equipment, and (3) assistance in blending grain to maintain the market value of grain in storage. Prices received for Virginia soybeans have been improved as a result of the department's program of developing additional outlets, of encouraging buying and selling on the basis of official grades, and of helping to modernize local handling facilities.

(Virginia)

Specialists helped in organizing an emergency hay program to assist farmers and hay dealers in three drought-stricken counties in obtaining hay of good quality and at reasonable prices.

Special market information--(RM: c-2550-6)

Weekly market information was distributed to farmers through newspapers over the State on the marketing situation for various products. Consumers were informed each week through newspapers and a weekly television show of the best food buys at retail. Special promotional drives were conducted, in cooperation with industry groups, on apples, poultry, eggs, and meat during periods of distressed prices and plentiful supplies.

Improving livestock grading and marketing methods--(RM: c-2550-7)

To assist livestock producers in making marketing decisions, a livestock auction market report was initiated during the year. Virginia producers sell about 75 percent of their livestock through local auctions, and this report provides them for the first time with a reliable and comprehensive source of price information on this major segment of their livestock sales. Specialists assisted the Virginia Agricultural Experiment Station in its Record of Performance Program by conducting grading demonstrations involving 911 Angus and Hereford calves and 164 yearlings from 28 farms. Demonstrations of Federal live hog grades were conducted on the Richmond livestock market in connection with the program to encourage the buying of hogs by grades. One packer on that market is now buying on that basis and has experienced a tremendous increase in volume. As a result of this buying program, the price spread on live hogs between Baltimore, Md., and Richmond, Va., has been narrowed by from 50 cents to 90 cents per 100 pounds.

Improving marketing practices for fruits and vegetables--(RM: c-2550-44)

Technical advice to apple growers in improving grading and packing methods is being provided through apple packing rings organized by growers with the assistance of the State department of agriculture. These growers share expenses and agree to pack on a U. S. grade basis. Two rings were in operation in 1954, involving about 160,000 bushels of apples.

The use of film bags, layer packs, and Northwest boxes by Virginia packers continues to increase. Last year about 150,000 bushels were packed in such containers and brought a net premium of from 50 cents to $1 per bushel over the basket pack.

Sweetpotatoes grown in Virginia have been selling on major northern markets from $1.25 to $1.75 per bushel under those of the same variety from some competing States. A specialist was recently assigned to work with sweetpotato producers on the Eastern Shore to improve the storage, handling, and marketing of the crop from that area of the State. Previous surveys of the department will provide valuable guidance in carrying out this program.

(Virginia)

Technical assistance in improving market facilities and handling methods--(RM:c-3550-33)

A detailed analysis was made of the operation of two egg assembly plants to determine what improvements were needed. These plants were assisted in overcoming technical problems resulting in excessive handling and high unit costs. The adoption of improved candling methods in one plant made possible potential savings of nearly $7,000 per year in that one operation. A similar analysis was made of a grain handling facility. Recommended improvements based on these analyses have been or are in the process of being made.

Technical assistance in helping to plan new or improved wholesale market facilities was provided to several cities in the State. The City of Richmond has budgeted $1 million to finance a new market, and the Richmond Produce Market Authority has contracted to build and operate it. In Lynchburg a wholesale food terminal corporation has been organized to finance, build, and operate a 25-unit market on a site already selected, graded, and provided with rail facilities.

WASHINGTON

Improving marketing methods and expanding outlets for dairy products, beef, and fruits and vegetables--(RM:c-2550-39)

The State department of agriculture continued its program of testing the use of vending machines in promoting increased milk consumption. A total of 80 test machines were in use in the Seattle area during March 1955, a gain of 60 installations since June 1954. Average sales per machine per day ranged between about 28 and 39 half-pint units, depending on the season of the year, equivalent to about 1 million units annually for the 80 machines. Much of this sales volume represents a net gain in consumption. This testing program has provided valuable information on the factors contributing to successful milk vending and has demonstrated the need for careful analysis of consumption habits and traffic patterns in selecting vending machine sites. There was a noticeable improvement during the year in the attitude toward the program of the operators of the establishments in which the machines have been installed.

In the beef marketing program, conducted in cooperation with the ladies auxiliary of the Cattlemen's Association, particular emphasis was given to the promotion of the lower priced cuts. Specialists assisted in organizing a committee from this auxiliary to sponsor a statewide demonstrational and informational program to acquaint consumers with the various low-priced cuts of beef and provide them with suggested recipes. Subcommittees of this group were organized in each county of the State to carry on local promotional work, including cooking demonstrations. Excellent cooperation was received from the press, radio, and television services in disseminating information on the subject.

(Washington)

Growers of red raspberries in the Puyallup Valley were confronted in 1955 with a large surplus and low prices because of reduced processing demand and a large carryover of frozen berries competing in the markets with the fresh product. Specialists assisted these growers in forming a committee which, with the specialists, developed a program to meet the problem. Under this program, using the slogan "Red Raspberry Time," a special drive was put on during the heavy marketing period to encourage greater use of fresh berries. Food editors gave this drive extensive free publicity through press, radio, and television. Various trade organizations representing retail growers and restaurant operators cooperated by encouraging their members to support the drive. The promotion apparently helped to increase the movement of fresh berries during the peak harvesting period, as evidenced by increased receipts at the Seattle market over the preceding year. Test shipments of fresh berries were made to Denver and Chicago to determine the possibilities of developing fresh outlets in those market territories.

Additional promotional efforts were carried out over the year to encourage greater use of frozen raspberries in the fountain trade and to interest food distributors in developing new raspberry products. Several drugstore chains featured red raspberry topping in the fountain as a result of this program. A sugar company cooperated in demonstrating at county fairs the various ways of serving red raspberries.

At the request of potato growers in the Columbia Basin area, the State department of agriculture undertook a survey of handling and marketing practices to determine why potatoes from the area frequently arrive at destination in poor condition. Bruising of the potatoes in harvesting, grading, packing, and shipping was found to be one of the important causes. Marketing specialists, in cooperation with agronomists from the Agricultural College, are working with growers and shippers to evaluate and put into effect handling practices designed to reduce bruising.

Special market information--(RM:c-4550-17)

Producers in the Columbia Basin irrigation area are being provided with information on local prices for such products as potatoes, beans, hay, carrots, melons, and livestock under an experimental market news service established by the department last year. This is a comparatively new irrigation area and surveys by the department have indicated that producers, many of whom are new to the area and to farming, are in great need of this type of information in planning their production and marketing programs. Price information on local sales is obtained daily from producers, processors, and other buyers in the area, summarized, and released to newspapers and radio stations. Mailed reports containing the summaries are sent out to interested persons three times weekly. New requests for the mailed report are received constantly.

WEST VIRGINIA

Improving grading, handling, and marketing of livestock, poultry and eggs, tobacco, and fruits and vegetables--(RM:c-2550-56)

The two broiler auctions organized by the State department of agriculture handled about 11 million broilers during the year, or two-fifths of the State's total production. Growers marketing through these auctions received from 1 to 2 cents more per pound than they would have received by other methods. Under the auction plan, specialists inspect and grade the birds on the farm and prepare grading reports which form the basis for the auction transactions. The auction method provides a means of bringing together a large number of buyers and of giving reasonably full effect to competitive forces not possible under the method of individual bargaining. In areas not accessible to the auctions, a modified selling plan has been established. Under this modified plan specialists perform the inspection and grading services, as under the auction plan. But instead of holding an auction, the specialists send inspection and grading reports to poultry buyers over a wide area. These reports cover flocks which producers have listed as being for sale the following week. More than 1 million broilers were sold under this modified plan during the past year.

Continued assistance in improving marketing methods and market quality and in securing improved breeding stock was given to the livestock industry through a series of special feeder calf and cattle sales. About 10,000 feeder calves and nearly 5,000 feeder cattle were sold, at price premiums amounting to about $6.50 and $13 per head, respectively, through the 45 special sales events sponsored by livestock specialists. These sales were publicized over a wide area to attract buyers. Prior to the sale specialists sorted the sale animals into uniform lots by age, sex, weight, and grade. This service demonstrated to the producer proper grading methods and the value to him of selling on the basis of grades. Livestock specialists also conducted grading demonstrations each week on cattle, calves, lambs, and hogs at the 22 regular weekly livestock auctions held over the State. About 4,000 livestock producers received the benefit of these demonstrations. It is estimated that this grading program and the system of livestock auctions have resulted in at least 4 million dollars of additional income to livestock producers in the State.

There are now 5 farmers' auction markets operating in the State to provide concentration points for the sale of farm products, other than livestock. Specialists provide assistance in improving grading and packing methods to producers using these markets. The markets serve approximately 5,000 producers directly but benefit a much larger number through the improvement in local prices which they bring about. One of these markets serves as a concentration point for black walnuts, which are sold under contract to an out-of-State sheller. Last year over 3 million pounds of unshelled walnuts were handled; they brought producers an income of about $100,000 which they otherwise would not have realized. Prices received for eggs sold through these

markets compare favorably with those in terminal markets. This fact has stimulated competition for eggs and improved prices generally in the areas which the markets serve. Egg quotations from the farmers' markets, as well as from the terminal markets, are disseminated daily to producers. This places producers in a position to bargain effectively with local buyers.

Assistance was again provided tobacco growers in improving the methods of storing, curing, stripping, and grading their tobacco. The specialists assigned to this work also visited the market on sale days to advise producers how best to repack tobacco that arrives at the markets in a poorly packed condition. These services were performed with respect to nearly 5 million pounds of tobacco during the year.

At the end of the year, a clearing house service was being organized and placed in operation to help apple growers find fresh fruit outlets for some 750,000 bushels of apples which could not otherwise be moved except to processors at extremely low prices. Under this plan, truckers and other buyers of apples in the South were to be informed of the supply situation and encouraged to make purchases in the State. To assist these buyers locate apples meeting their requirements, it was planned to establish an information center on a main highway leading into the apple area, assemble information as to quantity, variety, size, etc., currently from growers having fruit for sale, and pass this information on to buyers using the information center. This plan was being developed in cooperation with the West Virginia Horticultural Society.

New basic data and experimental market news--(RM:c-4550-40)

A weekly radio program, carried by 6 stations in the State, was started during the year to provide producers with current marketing information and price trends for crops and livestock. This method of disseminating market information supplements the various mailed reports and the semimonthly "Market Bulletin," which goes to 70,000 producers and other interested persons over the State.

The department is preparing a monthly poultry review and mailing it to a list of about 500 persons. A similar report on the dairy marketing situation goes to about 1,500 members of the dairy industry. These reviews bring together pertinent information on production trends, prices, storage holdings, and costs of feeds.

In response to insistent demands for county estimates of milk and egg production, plans are being made to provide this type of information in the near future. The basic data for this purpose are being compiled.

The survey of the broiler industry initiated last year was extended this year, in cooperation with pullorum testers, to include the minor producing areas of the State. Information on the location and density of broiler production is needed in planning processing and marketing facilities. Another survey was undertaken to obtain information on broiler prices by age, weight,

and method of sale which will be summarized and published to assist growers in planning marketing programs.

The broiler price reports, based on quotations submitted by buyers in the South Branch Valley, have proven successful in informing growers over the State of broiler values. A weekly livestock price report covering the auction markets has been started on a trial basis. This type of price report is needed by producers and buyers in their livestock marketing operations, but there are problems that remain to be worked out so that the quotations from the different markets may be placed on a comparable basis.

WISCONSIN

Improving marketing practices for tobacco, expanding outlets for dairy products, and experimental market news--(RM:c-2550-9)

A daily experimental market news service was provided the Wisconsin tobacco industry during the past year covering both type 54 and type 55 Binder and Stemming tobacco. Price and quantity information for this service is furnished daily by 17 companies operating in the two tobacco areas of the State. Reports based on this information are given the same day to the press, radio stations, and county agents in the tobacco area for dissemination to producers and buyers. The report also is given out the following day on the department's 9:50 a.m. radio market news broadcast. Weekly and annual summaries are made of sales and prices and published for industry use. This service is much in demand by the industry and has been helpful in stabilizing the market for Wisconsin's $6,500,000 tobacco crop.

As a result of past success in promoting cheese sales through the annual "Cheese Week" promotion drive, the Wisconsin Department expanded the program to include 10 cities as compared with 4 cities during the preceding year. Marketwide campaigns, under which promotional assistance was provided to all distributors and retailers in the market, were conducted in Denver, Atlanta, Boston, and Cincinnati; special campaigns limited to individual distributors or retailers were carried on in 6 other cities. Department specialists, in cooperation with industry representatives, made the plans for this important event through advance contacts with participating distributors and retailers in the selected market areas. Assistance was provided the participants in arranging for demonstrational material, in the training of demonstrators, and in securing free publicity through various media and special events in advance of and during the promotion week. The department's nutritionist provided a vital link in getting the program across to the consumers in the market area through cooking demonstrations, training of demonstrators, and contacts with food editors and home economists. A 13,500-pound Wisconsin Cheddar cheese was used as a promotional device by one cooperating retailer. To widen the scope and impact of the program, specialists were successful in arranging for tie-in promotions by allied food and beverage merchandisers.

(Wisconsin)

The Wisconsin department received numerous enthusiastic letters from cooperating distributors and retailers attesting to the favorable effect of the program upon cheese sales in their market areas both during and following "Cheese Week."

Other promotional programs to improve outlets for cheese and other dairy products included the "June Dairy Month" and the "October Dairy Festival." The "June Dairy Month" campaign is credited with boosting dairy products sales during the month by about 20 million pounds, milk equivalent. Various agencies including the Extension Service, farm organizations, the Wisconsin Bankers Association, the Wisconsin Restaurant Association, and the American Dairy Association, participated actively in the campaign. Much of the success of the campaign was attributed to the work of the county committees organized by the department in each of the 60 counties of the State. The committees sponsored local events and publicity programs. Under the other statewide promotion campaign, "October Dairy Festival," the department, in cooperation with the Wisconsin branch of the American Dairy Association and local interests, conducted promotional programs in 94 cities.

The department helped the Wisconsin Poultry Improvement Association conduct the January Egg Month merchandising program. Consumers were informed of this promotional drive through radio and television announcements and point-of-sale material supplied the cooperating 6 national and regional chains and independent retailers operating in the State.

The State of Wisconsin recently enacted legislation requiring all butter sold at the retail level to be graded and the grade to be indicated on the package. The department is operating a continuing program to acquaint consumers with the qualities of the different grades and to assist the butter industry and retailers to carry out their responsibilities under the legislation.

In conjunction with the Wisconsin Potato Growers Association, Inc., the department developed a "State Brand" project. This project permits a shipper to use Wisconsin brand labels on potatoes which are packed to meet the specifications of the brands and inspected by the Federal-State inspection service. This program is designed to help the Wisconsin potato industry meet the competition from well graded and packaged potatoes from areas operating under marketing agreements and orders. During the 1954-55 shipping season, about 1 million pounds of potatoes were packed under these labels and distributed in 17 Wisconsin cities for demonstrational purposes. According to cooperating retailers in the test cities, consumers showed much interest in these special packs. Plans are to expand the program next year so that there will be adequate volume to permit chainstore participation.

Promotional assistance for various Wisconsin products is provided on a year-round basis by the department nutritionist through special feature releases prepared for food editors and demonstrations before various consumer groups.

(Wisconsin)

A broiler price report, based on information supplied by selected producers and processors, is issued each Monday to about 700 producers and dealers. It gives prices at the farm on that day and a resume of the market during the preceding week.

Technical assistance to butter and cheese processors and cooperative marketing associations--(RM: c-3550-11)

Technical assistance was provided (1) the butter industry in designing new packages, particularly for use under the new Wisconsin butter-grading programs; (2) the cheese industry through the development of an improved method of processing and packaging Swiss cheese; and (3) the cooperative marketing organizations of the State in improving marketing services for their members. The objective of the butter packaging work with butter manufacturers is to develop and have adopted packages which will maintain the quality of the butter as well as have sales appeal. This work is just getting underway, but several manufacturers have been assisted in redesigning their packages in line with modern merchandising trends and in incorporating the new Wisconsin butter grades in their package designs. The new method of producing Swiss cheese, developed by the department and presented to the cheese industry, is described in the department publication entitled "Rindless Block Swiss Cheese by the Tulane-Honer Method." This describes the procedures to be followed in processing Swiss cheese to reduce or eliminate trimming losses and the Honer method of wrapping, which may be used without violating existing patent rights. Continued assistance was provided cooperative dairy plants in improving their marketing efficiency through advice on methods of developing volume, improving financing and management, and reorganizing.

Two egg marketing cooperatives were assisted during the year in consolidating to provide a statewide egg marketing service. This new organization is expected to be a constructive influence in improving egg quality and the efficiency of egg marketing in the State. A group of turkey growers in one area was given technical assistance in analyzing the need for a cooperative turkey processing plant. Similar assistance was given a cooperative livestock marketing association in determining where new facilities were needed.

Improving the quality of dairy products--(RM: c-3550-26)

Activities during the year in connection with the Wisconsin cream quality improvement project were concentrated at the butter manufacturing plant level. With the success of the consumer butter grade labeling program in creating a strong consumer demand for high quality butter, the butter manufacturers have become more cream-quality conscious and increasing numbers are adopting recommended practices and improvements to achieve a higher quality product. These practices and improvements include the installation of mechanical cream coolers and contact equipment of stainless steel in plants, the institution of a sound can retinning-replacement program and more effective can washing procedures, and curtailment in the use of salvage materials such as salt drippings, drain table whey, and "drip" milk from dairies. Butter manufacturers also are showing more initiative in working with the producer

on his cream-quality problems and in developing, through area and statewide committees, suggested specifications for Wisconsin cream grades to replace those now in effect.

The Wisconsin butter quality improvement program has shown significant results since its inception in 1951. In the January-April period of that year about 43 percent of the 406 samples of butter scored made a score of 91½ or more (Wisconsin Grade A, or better), and 35 percent made a score of 89 or less (Wisconsin undergrade). During the comparable period of 1955, the percentage of samples (345) rating 91½ or more had increased to 65 percent, and the percentage rating 89 or less had dropped to 3 percent. Since nearly 32 percent of 1955 samples scored as B grade (90-91½ score), the need for continuation of this program is evident.

Intensive quality improvement programs for dairy products at both the producer and plant level were continued in Wood and Sheboygan counties during the year. In Wood county, where this program was in its second year, the addition of a third specialist made it possible for the specialists to concentrate more on difficult quality situations and to effect closer producer-plant relationships. These specialists were assigned to 27 dairy plants, primarily cheese plants, in the county to assist them and their producers in improving the quality of milk received at the plants and the finished products. Services provided to these plants included the making of general plant inspections to serve as a basis for determining needed plant improvements, sanitary inspections, and regular milk quality tests. Over 3,000 farm visits were made to correct quality problems originating at the producer level. In Sheboygan county, the fourth year of this intensified program has been completed and has achieved a significant improvement in milk quality, based on both the sediment and bacteriological tests. For example, in 1950 before the program started, only 72.3 percent of the milk sampled graded No. 1 on the basis of the bacteriological test; in 1955 the percentage of No. 1 milk based on this test had increased to 86.7 percent. Based on the sediment test, the percentage of No. 1 milk increased from 15 percent in 1950 to 21.6 percent in 1955. The program in Sheboygan County has brought about a 1,400,000-pound annual reduction in the amount of reject grade milk, representing an increase in producer returns of approximately $42,000.

A Cheese Quality Pilot Study was started during the year in Wood and Sheboygan counties to determine what improvements in cheese quality could be brought about by a concentrated effort on the problems responsible for poor quality. Eight cheesemakers, 4 from each county, are participating in the study. Under this study, the cheesemaking operations in each cooperating plant were observed and the cheese produced by each participant was graded by a specialist to establish the existing performance standard of each. Field trips to the College of Agriculture, cheesemaker supply laboratories, and leading cheese factories were conducted to demonstrate improved plant equipment and proper cheesemaking practices. Following these field trips meetings were held with participants to discuss with them the improved practices and procedures demonstrated and to assist them in the technical

aspects of the various tests essential in controlling cheese quality. Specialists also made periodic checks of the cheesemakers' progress in adopting recommended practices and of the grade of cheese produced. Although the Pilot Study has been in operation only a short time, two of the participating cheesemakers have shown a marked improvement in the quality of product produced. Officers of the Wisconsin Cheesemaker Association have expressed an interest in the development of this type of program on a statewide basis. At the request of this association a suggested Cheesemaker Enlightenment Program for Wisconsin was outlined by a State department of agriculture specialist at a meeting of one of this association's locals. This local has recommended that the association appoint a committee to place this suggested program in effect.

The indiscriminate use of antibiotics in mastitis control and the failure to discard such contaminated milk until all traces of the drug have been dissipated constitute a general problem in cheesemaking operations over the State. The presence of such drugs in milk tends to inhibit lactic acid development, with resulting deleterious effects upon cheese quality. Specialists investigated the mastitis treatment work of a local veterinarian who had been using for several years a red dye in the drugs used in treating this disease. This dye imparts a distinct color to the milk until all trace of the antibiotic is removed from the udder and provides a technique by which the producer can determine when to resume the shipment of milk from treated cows.

In cooperation with the University of Wisconsin, work was continued on the development of improved procedures for bacteriological quality tests.

A study was made of bulk-milk dispensing to develop recommended handling and sanitizing procedures to maintain product quality. On the basis of this study, the department prepared a set of recommended procedures for all bulk-milk dispensing operations for the use of the dairy industry. In general, it was found that if the basic principles of sanitation and a few specific precautions are observed, bulk-milk dispensing can provide consumers with a high-quality product efficiently and conveniently.

During the year flavor tests were made of milk from 17 plants and ice cream from 13 plants in connection with the Flavor Survey conducted in cooperation with the College of Agriculture. A summary of this work was presented before the 1955 Wisconsin Dairy Manufacturers' Conference. Results of the service show a definite need for greater concentration on the flavor problem. The department has recommended that individual plants set up their own flavor score panels to judge their products on the basis of consumer acceptance. Several plants have followed this recommendation, and others have the matter under consideration.

The State department is cooperating with a committee appointed by the Wisconsin Dairy Federation to develop recommended minimum standards for bulk handling of milk on farms. This method of handling has shown a phenomenal

growth in Wisconsin and has created a need for improved and more exacting sanitation practices. The committee has prepared suggested minimum standards for bulk handling but is continuing its search for improved methods to be incorporated in the recommendations. The procedure for cleaning dairy product pipelines in-place, referred to as the CIP system, created much interest several years ago, but because of the high cost of installation and maintenance, together with questionable results, has not been adopted on the scale that was originally conceived. However, recommended minimum standards for installation and maintenance have been developed for such installations, both on farms and in dairy plants.

New basic data for farm products--(RM:c-4550-5)

In developing effective marketing programs, producers and marketers need basic information relating to such factors as annual and seasonal trends in production, utilization, demand, prices, and storage holdings. This need is accentuated by the rapid and far-reaching changes taking place in the production and marketing patterns for some commodities. The Wisconsin department is endeavoring to obtain the needed basic data through a number of special surveys.

A comprehensive statistical report on the Wisconsin dairy industry was prepared for publication during the year. The report included such items as outshipments of Grade A milk, milk prices, percentage of farms producing Grade A milk, and size and location of dairy plants. This report will provide the dairy industry with the essential background data for evaluating and interpreting the current data on the dairy supply and demand situation reported in the monthly issues of "Wisconsin Dairying." This monthly publication, which has a circulation of over 6,500 copies, is issued in cooperation with the Federal-State Crop and Livestock Reporting Service. One of the important types of data included in this publication is a comparison of monthly average prices paid producers for milk going into the various uses, converted to an equivalent 3.5 test basis.

Livestock surveys, similar to the June and December Rural Carrier Livestock Surveys, were made as of March 1 and September 1 to improve the estimates of livestock production and marketings. These surveys provided data not only for the usual estimates of hog numbers, sows farrowed, and farrowing intentions but also on feeder pig, cattle, and calf marketings. Wisconsin is rapidly expanding as a feeder pig producing area, but little is known about the seasonal price pattern.

As a part of its continuing program to provide Wisconsin's producers and processors of vegetable crops with basic data on these commodities, the Crop Reporting Service completed and issued during the year Special Bulletin No. 52, "Peas and Sweet Corn Production and Marketing." A survey of the Wisconsin cucumber pickle industry also was started and is expected to be completed next year.

(Wisconsin)

Basic data on small grain production, utilization, storage facilities, and animal units fed was published in Special Bulletin No. 54, "Wisconsin Small Grains." County data on permanent small grain storage capacity and small grain production were included in this bulletin.

To comply with numerous requests for information on egg buying practices in the State, an egg marketing survey was made during the year.

Data also were assembled on the size of dairy plants, cheese styles and packaging, Wisconsin cigar tobacco supplies--all of which are continuing activities--and on production of maple sirup and sugar, honey and beet sugar.

WYOMING

Improving the quality of livestock, dairy, and poultry products--(RM: c-2550-60)

Assistance was given commercial slaughtering plants, meat processors, egg wholesalers, cream stations, and retailers in improving processing, grading, and handling methods. Demonstrations of proper sanitation procedures and cooling methods were given to cream producers and processors. Milk and cream were tested to assist producers in determining the efficiency of quality control measures being employed. These activities have reduced the quantity of milk and cream condemned because of poor quality and have improved the quality of dairy products processed in the State. Proper methods of grading, candling, and packaging eggs were demonstrated to egg producers, wholesalers and retailers.

Basic data on livestock and crops--(RM: c-4550-38)

Two publications of basic data assembled under this project were issued during the year under the titles: "Wyoming Agricultural Statistics and Information, 1953-54," and "Movement of Wyoming Cattle, 1950-52." Using data compiled from the brand certificates on file in the Livestock and Sanitary Board, the department has presented in the latter publication a comprehensive and detailed analysis of the intrastate and interstate movement of Wyoming cattle. Data are presented for each county, showing the number and classes of cattle moving to important out-of-State central and auction markets and direct to country points. The total interstate movement by classes is presented by months. County data also are given on the annual interstate and intrastate movement. This type of information is of much interest to ranchers, livestock auction operators, feeder buyers, transportation agencies, and others concerned with livestock marketing problems.

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